

# Navy Personnel Research and Development Center

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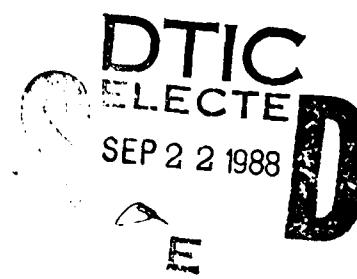


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## Job Performance Measurement Package for the J-79 Jet Engine Mechanic

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August 1988

**Job Performance Measurement Package for the  
J-79 Jet Engine Mechanic**

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## FOREWORD

This report contains a comprehensive measurement system that was developed to assess the technical proficiency and job performance of first-term J-79 jet engine mechanics.

The research reported here is expected to benefit the operational, training, and research communities of the Armed Services and the field of Industrial/Organizational Psychology generally. This research was funded primarily under PE 63707N (Manpower and Personnel Systems) and project number R1770 (Manpower and Personnel Systems).

JOHN J. PASS

Director, Personnel Systems Department

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## CONTENTS

	Page
INTRODUCTION .....	1
APPENDIX A--RATER TRAINING PROGRAM ADMINISTRATOR'S GUIDE FOR NAVY/MARINE CORPS JET ENGINE MECHANICS .....	A-0
APPENDIX B--RATING TRAINING PROGRAM TRAINEE BOOKLET FOR NAVY/MARINE CORPS JET ENGINE MECHANICS .....	B-0
APPENDIX C--RATING FORM BOOKLET FOR NAVY/MARINE CORPS J-79 JET ENGINE MECHANICS AT THE INTERMEDIATE MAINTENANCE ACTIVITY (IMA) .....	C-0
APPENDIX D--RATING FORM ANSWER SHEETS AND QUESTIONNAIRE FOR NAVY/MARINE CORPS J-79 JET ENGINE MECHANICS AT THE INTERMEDIATE MAINTENANCE ACTIVITY (IMA) .....	D-0
APPENDIX E--RATING FORM BOOKLET FOR NAVY/MARINE CORPS J-79 JET ENGINE MECHANICS AT THE ORGANIZATIONAL MAINTENANCE ACTIVITY (OMA) .....	E-0
APPENDIX F--RATING FORM ANSWER SHEETS AND QUESTIONNAIRE FOR NAVY/MARINE CORPS J-79 JET ENGINE MECHANICS AT THE ORGANIZATIONAL MAINTENANCE ACTIVITY (OMA) .....	F-0
APPENDIX G--WALK THROUGH PERFORMANCE TESTING ADMINISTRATION MANUAL FOR NAVY/MARINE CORPS J-79 JET ENGINE MECHANICS AT THE INTERMEDIATE MAINTENANCE ACTIVITY (IMA) AND ORGANIZATIONAL MAINTENANCE ACTIVITY (OMA) .....	G-0
APPENDIX H--WALK THROUGH PERFORMANCE TESTING FOR NAVY/ MARINE CORPS J-79 JET ENGINE MECHANICS AT THE INTERMEDIATE MAINTENANCE ACTIVITY (IMA) .....	H-0
APPENDIX I--WALK THROUGH PERFORMANCE TESTING FOR NAVY/ MARINE CORPS J-79 JET ENGINE MECHANICS AT THE ORGANIZATIONAL MAINTENANCE ACTIVITY (OMA) .....	I-0
APPENDIX J--JOB KNOWLEDGE TEST FOR NAVY/MARINE CORPS J-79 JET ENGINE MECHANICS AT THE INTERMEDIATE MAINTENANCE ACTIVITY (IMA) .....	J-0
APPENDIX K--JOB KNOWLEDGE TEST ANSWER SHEETS FOR NAVY/ MARINE CORPS J-79 JET ENGINE MECHANICS AT THE INTERMEDIATE MAINTENANCE ACTIVITY (IMA) .....	K-0
APPENDIX L--JOB KNOWLEDGE TEST FOR NAVY/MARINE CORPS J-79 JET ENGINE MECHANICS AT THE ORGANIZATIONAL MAINTENANCE ACTIVITY (OMA) .....	L-0

APPENDIX M--JOB KNOWLEDGE TEST ANSWER SHEETS FOR NAVY/MARINE  
CORPS J-79 JET ENGINE MECHANICS ORGANIZATIONAL MAINTENANCE  
ACTIVITY (OMA) ..... M-0

APPENDIX N--GENERAL UTILITY/ACCEPTABILITY QUESTIONNAIRE FOR  
THE NAVY/MARINE CORPS J-79 JET ENGINE MECHANIC PERFORMANCE  
ASSESSMENT SYSTEM ..... N-0

DISTRIBUTION LIST

## INTRODUCTION

A comprehensive measurement package was developed to assess the technical proficiency and job performance of first-term J-79 jet engine mechanics. The major portion was adapted from measures developed by the Air Force, in a tri-service technology transfer effort; it was augmented by an additional instrument. That work has been documented (Baker, Blackhurst, & Alba, 1987).<sup>1</sup>

Subsequently, the test package was administered to a sample of first-term Marine Corps J-79 jet engine mechanics at several bases in the CONUS and Hawaii. That study materially contributed to the Joint-Service Job Performance Measurement/Enlistment Standards Project, in that it revealed the possibility of order-of-administration effects when several measures are administered in varying sequences. Documentation will be found in Alba and Baker (in preparation).<sup>2</sup>

The instrument and other materials used in the project are presented in the sections to follow of this report. The comprehensive performance measurement package was delivered to Headquarters, 4th Marine Aircraft Wing (FMF), for possible use by the Marine Corps Reserve in assessing the proficiency and performance of its J-79 jet engine mechanics.

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<sup>1</sup>Baker, H. G., Blackhurst, J., & Alba, P. A. (1987). Inter-service technology transfer of J-79 jet engine mechanic performance measures (NPRDC TN 87-22). San Diego: Navy Personnel Research and Development Center.

<sup>2</sup>Alba, P. A., & Baker, H. G. (in preparation). Multi-method measurement of job proficiency: Marine Corps J-79 jet engine mechanics. San Diego: Navy Personnel Research and Development Center.

**APPENDIX A**  
**RATING FORMS**  
**RATER TRAINING PROGRAM ADMINISTRATOR'S GUIDE**  
**FOR**  
**NAVY/MARINE CORPS JET ENGINE MECHANICS**

## RATER TRAINING PROGRAM

### Administrator's Guide

HAND OUT RATER TRAINING BOOKLETS, THEN SAY: WE ARE GOING TO BEGIN THE RATER TRAINING SESSION. PLEASE TURN TO PAGE 1 AND FOLLOW ALONG WHILE I READ OUT LOUD. PLEASE DO NOT MARK IN THE BOOKLETS.

#### I. Introduction

For the next several hours, your time will be spent focusing on the rating forms you will complete as part of this research project. You will use several rating forms to rate the performance of yourself, your coworkers, or if you are a supervisor, your subordinates.

Before you use any of the rating forms, we are going to talk about each form, its purpose, and how to use each form to effectively rate an individual. We are also going to discuss some ideas that will help you use the rating forms and make the most accurate ratings possible.

It is essential to the outcome of this project that you be truthful and honest in your ratings. The ratings will not be seen by your coworkers, supervisor, or anyone else connected with your unit. The data collected will be seen only by Navy Personnel Research and Development personnel and the private contractor associated with this project. The information you provide will be coded to assure confidentiality and the rating forms will subsequently be destroyed. The ratings will be used for research purposes only and will in no way effect anyone's career. Therefore, please rate each person as accurately as possible.

## II. Explanation of Rating Scale

### A. SHOW OVERHEAD OF RATING SCALE - PROFICIENCY BASE (SLIDE IIA)

Each rating form uses a 5-point scale (5 high-1 low). To help you make more accurate ratings, the points on the scale are labeled, or anchored. You will notice that these anchors describe a certain level of proficiency. Proficiency refers to how skilled a person is at performing various tasks on the job, ignoring interpersonal factors (willingness to work, cooperating with others) or situational factors (lack of tools or parts, weather conditions).

READ THROUGH EACH LEVEL

### B. SHOW OVERHEAD OF RATING SCALE - PERFORMANCE BASE (SLIDE IIB)

One of the rating forms you will be using is not technical in its orientation. The scale anchors of this form refer to various levels of performance rather than levels of proficiency. The rating form will examine not only technical ability, but also other factors that contribute to a mechanic's performance on the job.

READ THROUGH EACH LEVEL

### C. SHOW OVERHEAD OF BEHAVIORAL EXAMPLES - QUALITY CONTROL

(SLIDE IIC)

Three of the rating forms will include short paragraphs that describe behavior typical to each level on the scale. These behavioral examples will aid you in making your ratings.

REFER TO THE OVERHEAD AND SAY:

THIS PARTICULAR ITEM RATES A PERSON'S LEVEL OF PROFICIENCY IN THE AREA OF QUALITY CONTROL. NOTICE THAT A DEFINITION OF QUALITY CONTROL IS GIVEN FIRST.

POINT TO AND READ DEFINITION

THE DEFINITION IS FOLLOWED BY THE ANCHOR FOR EACH LEVEL, THE CORRESPONDING NUMBER FOR EACH LEVEL, AND THE BEHAVIORAL EXAMPLES

POINT TO EXAMPLES, READ THROUGH EACH EXAMPLE, BEGINNING WITH LEVEL 5. READ ACROSS FORM, FROM LEFT TO RIGHT, STATING THE LEVEL, THE NUMBER, AND THEN THE BEHAVIORAL EXAMPLE.

D. SHOW OVERHEAD OF BEHAVIORAL EXAMPLES - INITIATIVE/EFFORT (SLIDE IID)

SAY: HERE IS ANOTHER SET OF BEHAVIORAL EXAMPLES. THESE EXAMPLES REFER TO VARIOUS LEVELS OF PERFORMANCE IN THE AREA OF INITIATIVE/ EFFORT.

ALLOW SUFFICIENT TIME FOR INCUMBENTS TO READ SEVERAL EXAMPLES.

IT IS IMPORTANT THAT YOU READ ALL THE BEHAVIORAL EXAMPLES THOROUGHLY BEFORE DECIDING ON A RATING. DO NOT EXPECT A PERSON'S JOB-RELATED BEHAVIOR TO BE IDENTICAL TO A GIVEN BEHAVIORAL EXAMPLE. THE EXAMPLES ARE IN NO WAY MEANT TO INCLUDE ALL POSSIBLE BEHAVIOR. USE THE EXAMPLES ONLY AS GUIDELINES FOR DETERMINING A RATING.

ASK: ARE THERE ANY QUESTIONS REGARDING THE RATING SCALE?

### III. Explanation of Rating Forms

DISTRIBUTE COPIES OF RATING FORM BOOKLETS. SAY: THESE ARE THE RATING FORM BOOKLETS YOU WILL BE USING LATER. THEY CONTAIN FOUR DIFFERENT TYPES OF FORMS, WITH TWO OR MORE ITEMS WITHIN EACH CATEGORY. WE WILL BRIEFLY LOOK AT EACH FORM. PLEASE DO NOT MARK IN THESE BOOKLETS. NOW TURN TO THE GLOBAL RATING FORM ON PAGE 3.

A. Global Rating Form

This rating form has two items. The first item asks for a rating of a person's overall technical proficiency. TECHNICAL PROFICIENCY REFERS TO HOW SKILLED SOMEONE IS AT PERFORMING VARIOUS TASKS ON THE JOB, IGNORING INTERPERSONAL FACTORS SUCH AS WILLINGNESS TO WORK AND COOPERATION WITH OTHERS OR SITUATIONAL FACTORS SUCH AS LACK OF TOOLS OR PARTS AND WEATHER CONDITIONS. The second item asks for a rating of a person's overall social/interpersonal proficiency. INTERPERSONAL PROFICIENCY REFERS TO HOW WELL SOMEONE WORKS WITH VARIOUS LEVELS OF SUPERVISION AND HOW COOPERATIVE AN INDIVIDUAL IS ON A TASK REQUIRING TEAM EFFORT. This form utilizes behavioral examples to aid you in making your ratings. TAKE TIME TO EXAMINE THE TWO GLOBAL RATING FORMS ON PAGES 4 AND 5 OF THE RATING FORM BOOK.

ALLOW TIME FOR EXAMINATION OF FORM. THEN SAY: PLEASE TURN TO THE DIMENSIONAL RATING FORM ON PAGE 6.

B. Dimensional Rating Form

The purpose of this rating form is to evaluate a mechanic's performance or level of proficiency on a number of important job areas or dimensions. REMEMBER, PROFICIENCY REFERS TO HOW SKILLED SOMEONE IS AT PERFORMING VARIOUS

TASKS ON THE JOB, IGNORING INTERPERSONAL FACTORS. Again, the behavioral examples will serve as a guide in determining your ratings.

THE DIMENSIONS ON WHICH YOU WILL RATE THE INDIVIDUAL'S PERFORMANCE INCLUDE COMPLETION OF FORMS, REMOVE/REPLACE ENGINE COMPONENTS, INSPECT ENGINES, ENSURE QUALITY CONTROL, PERFORM MAINTENANCE TASKS AND TROUBLESHOOT OR SHIPMENT PREPARATION.

TAKE TIME NOW TO REVIEW THE DIMENSIONAL RATING FORM ON PAGES 7 THROUGH 12 IN THE RATING FORM BOOK.

ALLOW TIME FOR EXAMINATION OF FORM. THEN SAY: PLEASE TURN TO THE TASK RATING FORM ON PAGE 13.

C. Task Rating Form

The purpose of this rating form is to evaluate performance on a variety of tasks critical to first-term Navy/Marine Corps Jet Engine Mechanics. This form contains tasks performed by J-79 jet engine mechanics at IMA and OMA, as well as, tasks unique to each maintenance activity. REMEMBER WE ARE CONCERNED WITH THE LEVEL OF ABILITY TO PERFORM THESE TASKS, NOT INTERPERSONAL OR SITUATIONAL FACTORS. PLEASE LOOK AT THE TASK RATINGS ON PAGES 14 AND 15.

ALLOW TIME FOR EXAMINATION OF FORM. THEN SAY: PLEASE TURN TO THE NAVY/MARINE CORPS-WIDE RATING FORM ON PAGE 16.

D. Navy/Marine Corps-Wide Rating Form

This rating form does not evaluate technical job skill. It rates a person on

elements important to overall success in the Navy or Marine Corps. This is the rating form mentioned previously that uses performance rather than proficiency as a basis for rating scale anchors. Again, you will utilize behavioral examples in making your ratings. THE EIGHT CATEGORIES ON WHICH YOU WILL RATE AN INDIVIDUAL ARE: TECHNICAL KNOWLEDGE, INITIATIVE, KNOWLEDGE OF AND ADHERENCE TO REGULATIONS, INTEGRITY, LEADERSHIP, MILITARY APPEARANCE, SELF DEVELOPMENT, AND SELF CONTROL.

PLEASE REVIEW THE FORMS ON PAGES 17 THROUGH 24.

ARE THERE ANY QUESTIONS REGARDING THE RATING FORMS?

AFTER ALL QUESTIONS HAVE BEEN ANSWERED, COLLECT THE RATING FORM BOOKLETS. WHEN ALL BOOKLETS HAVE BEEN COLLECTED, SAY:

NOW TURN TO SECTION FOUR ON PAGE 4 IN YOUR TRAINING BOOKLET.

#### IV. Tips on Making Accurate Ratings

##### A. General Information

The most important thing to remember when making your ratings is to focus your attention only on the person you are rating and only on the person's ability to perform. Avoid comparing the person with coworkers you've rated previously or those you will subsequently evaluate.

Remember that even though you and the people you rate are similar because you are all Jet Engine Mechanics, each person has a unique set of strengths and weaknesses. Also, be aware that poor or outstanding performance in one area

does not dictate the quality of performance in other areas. Rate the person according to the individual's ability to perform on the job and focus on behavior that you can see. Finally, do not be afraid to use the entire range of the scale when appropriate. Your honesty will serve to ensure the accuracy of your ratings.

ARE THERE ANY QUESTIONS?

B. Exercise

The following is a conversation between several engine crew chiefs. Read it and see if you can identify factors that might contribute to inaccurate ratings.

SAY: TAKE A FEW MINUTES TO READ THIS CONVERSATION. WHEN YOU ARE FINISHED, WE WILL DISCUSS IT.

Andrews: Here we are again at our weekly gripe session.

Baker: Yeah. Seems like we never run out of problems to complain about.

Cullen: I don't know why you guys have so many problems on your crew.

Baker: Because we don't have the cream of the crop that you have.

Cullen: You've got the same kind of guys working for you that I have. Just think about it. All the service men take tests to identify who has the aptitude for what. Right?

Andrews: Right.

Cullen: OK. So you've got a bunch of guys with mechanical aptitude. These guys all receive the same training at tech school to learn to be competent mechanics. They all come out of tech school with the same training. That's the purpose of tech school. So there shouldn't be anyone on your crew who is more qualified to do the job than someone else. Granted, if you take any one of the mechanics and compare him to the average guy on the street, sure, he is going to look like a mechanical genius. But among his

fellow crew members, he's just another average guy like all the rest.

Andrews: I disagree. On my crew, I've got a couple of guys who are just outstanding. Next to these guys, the rest of my people are way below average.

Baker: I know what you mean. I received a new recruit two weeks ago. You wouldn't believe how badly he has performed in the short time he's been here. I guess I've got a real loser on my hands. He'd be right at home with your guys, Andrews.

Davis: I guess I sort of understand what you are talking about. But on the other side of the coin. The last recruit that came onto my crew was fresh out of tech school. He hadn't been here but a week or so and I gave him a VIDS/MAF to complete. Well, he completed the form without even asking a question and used the Code Manual like a pro. I figure I have a super mechanic in this guy. I mean, if he can do that, he can do just about anything I assign him to do.

Andrews: You know, Cullen, I've heard how difficult you can be when you rate your men. I've heard some of your people complain that no matter how hard they try, you won't give them more than an average rating. They say they feel like they're banging their heads against a brick wall.

Cullen: I have a pretty good idea who you're talking about. If they think it's hard to get a good rating out of me now, just wait until I rate them next time. They'll find out how hard a brick wall really is.

Andrews: I guess I don't think like you guys at all. I try to be a friend to my men. Some of them are away from home for the first time and I don't like to make it any rougher on them than I need to. I try to give my men the benefit of a doubt when I'm rating them. You'd be surprised what you learn about your men if you try to be their friend. For instance, there's a guy on my crew now who reminds me of myself when I was his age. He's from a small town and joined the service to get away from that atmosphere and see a little of the world. I can really identify with him.

Davis: Well, I don't know about being buddy-buddy with my men, but I do know that right now everyone in my unit is doing a good job as far as I'm concerned.

Andrews: Why is that?

Davis: Well, I'm up for promotion in a couple of months. And let's face it, the better my men look on their ratings, the better I look as a supervisor. And the better I look, the better my chances are for promotion!

WHEN IT APPEARS THAT EVERYONE HAS READ THE CONVERSATION, BEGIN THE DISCUSSION. SAY: THE THIRD TIME CULLEN SPEAKS, HE TALKS ABOUT HOW EVERY MEMBER OF A CREW HAS THE SAME TRAINING AND QUALIFICATIONS. HIS WAY OF THINKING DIRECTS HIM TO THE INCORRECT CONCLUSION THAT EVERYONE IS AVERAGE. HE IS LIKELY TO GIVE ONLY AVERAGE PERFORMANCE RATINGS TO HIS CREW MEMBERS, AND WILL PROBABLY NOT RECOGNIZE OUTSTANDING OR EVEN BELOW AVERAGE PERFORMANCE.

ANDREWS MAKES A MISTAKE IN THE NEXT STATEMENT BY COMPARING CREW MEMBERS WITH EACH OTHER. THE LESSON HERE IS TO RATE EACH PERSON ACCORDING TO HIS OR HER OWN ABILITY TO DO THE JOB.

BAKER FOLLOWS BY MAKING A JUDGEMENT THAT A CREW MEMBER IS "A REAL LOSER" WHEN HE'S ONLY BEEN ON THE CREW A COUPLE OF WEEKS. WHEN YOU MAKE YOUR RATINGS, BE SURE TO BASE THEM ON A NUMBER OF OBSERVATIONS OF A PERSON'S PERFORMANCE AND NOT JUST ON ONE INCIDENT.

DAVIS MAKES THE NEXT MISTAKE WHEN HE ASSUMES THAT IF A CREW MEMBER CAN DO ONE TASK WELL, HE CAN DO EVERYTHING WELL. WHEN YOU MAKE YOUR RATINGS, TRY NOT TO MAKE THIS TYPE OF MISLEADING ASSUMPTION. IN OTHER WORDS, JUST BECAUSE A PERSON GETS A HIGH RATING ON ONE TASK OR DIMENSION, THAT DOESN'T MEAN THE PERSON WILL ALSO GET HIGH RATINGS ON THE OTHER TASKS OR DIMENSIONS. THE SAME APPLIES FOR LOW RATINGS.

ANDREWS STATES THAT CULLEN HAS A REPUTATION OF BEING AN UNREASONABLY TOUGH RATER AND IN THE NEXT STATEMENT CULLEN CONFIRMS THIS FACT. CULLEN IS NOT BASING HIS RATINGS ON OBSERVED BEHAVIOR. INSTEAD, HE IS USING THE LOW RATINGS AS A WAY TO GET REVENGE ON HIS CREW MEMBERS. SOME PEOPLE MIGHT USE HIGH

RATINGS TO REWARD OTHERS. EITHER WAY IS UNFAIR. ONCE AGAIN, THE RULE HERE IS TO BASE YOUR RATINGS ON OBSERVED BEHAVIOR - BEHAVIOR THAT YOU CAN SEE.

IN THE NEXT STATEMENT, ANDREWS INDICATES THAT HE IS A LENIENT, OR EASY, RATER. ON TOP OF THAT, ANDREWS IS LIKELY TO RATE A PERSON HIGHER IF THAT PERSON IS SOMEHOW SIMILAR TO HIMSELF IN BACKGROUND, INTERESTS, ETC. AGAIN, BASE YOUR RATINGS ON OBSERVED BEHAVIOR.

FINALLY, IN THE LAST STATEMENT, DAVIS IS ASSUMING THAT HIS OWN WORTH AS A SUPERVISOR IS ENHANCED BY THE FAVORABLE RATINGS HE GIVES HIS CREW MEMBERS. HE WOULD NOT BE LIKELY TO GIVE LOW RATINGS BECAUSE THAT WOULD MAKE HIM LOOK BAD AS A SUPERVISOR. THE RATINGS YOU GIVE WILL IN NO WAY REFLECT BACK ON YOU.

IN SUMMARY, THE ONE MOST IMPORTANT THING TO REMEMBER WHEN MAKING YOUR RATINGS IS TO FOCUS ON BEHAVIOR YOU HAVE OBSERVED AND BASE THE RATINGS ON THIS BEHAVIOR.

NOW LET'S LOOK AT PARAGRAPH FIVE ON PAGE 7.

#### V. Practice Exercises for Rating Forms

Now you will have the opportunity to practice using two of the rating forms that have been discussed, the Navy/Marine Corps-Wide and the Dimensional. The purpose of these exercises is to help you become familiar and comfortable with the forms and to address any questions or concerns you might have regarding their use.

##### A. Exercise I - Navy/Marine Corps-Wide Rating Form (Page 7)

Read the following story and use the information in it to complete a sample

Navy/Marine Corps-wide Rating Form on Martin. [DISTRIBUTE COPIES OF SAMPLE ANSWER SHEET] HERE IS A SAMPLE OF THE ANSWER SHEETS YOU WILL BE USING LATER. FOR NOW, YOU WILL ONLY BE CONCERNED WITH THE NAVY/MARINE CORPS WIDE SECTION. [POINT TO SECTION] IF YOUR RATING FOR PERFORMANCE FACTOR #1 IS A FIVE, CIRCLE THE 5 IN THE PF1 ROW ON THE ANSWER SHEET.

SAY: READ THE STORY AND COMPLETE THE EIGHT PERFORMANCE FACTOR RATINGS. WE WILL DISCUSS YOUR RATINGS WHEN EVERYONE IS FINISHED. PLEASE READ EACH FACTOR SEPARATELY AND MAKE A RATING FOR EACH PERFORMANCE FACTOR. REMEMBER THERE ARE EIGHT PERFORMANCE FACTORS. RATE MARTIN ON ALL EIGHT FACTORS.

\*EXERCISE I

NAVY/MARINE CORPS-WIDE RATING FORM

Martin, an engine crew chief, was in the process of reassembling his engine when the shop chief informed him that the engine had to be ready for final inspection by Friday.

Martin said that there would be no problem meeting that deadline and he quickly took charge of the situation, gaining the support of his subordinates (PF5-5). Using his technical knowledge and skills, he finished the assembly late Thursday afternoon but required supervision during the buildup of the hot section (PF1-3).

Prior to leaving, it was discovered that a tool was missing. Being a truthful individual, and knowing the importance of the situation, Martin informed the shop chief immediately (PF4-5). Staying calm and in control, he volunteered, without hesitation, to stay until the tool was found (PF2-5).

The next morning, Martin was informed to report to the Aircraft Maintenance Officer at 1300. At 1300 he reported to the AMO Office (PF3-4). The AMO called him in and commended him on a job well done and on his self control in the situation of the missing tool (PF8-5). Also, the AMO said his appearance and military bearing were outstanding (PF6-5) and to keep up the good work.

After getting off duty later that day, Martin went to the Publication room to check out some PUBs to study the problem c the engine he was getting next (PF7-4).

\*NOTE TO ADMINISTRATORS:

The underlined statements in Exercise I and II are justifications for ratings.

The parenthetical notation following each statement refers to the dimension/performance factor number and its appropriate rating.

WHEN IT APPEARS THAT EVERYONE HAS COMPLETED THE FORM, SAY:

THERE ARE KEY STATEMENTS IN THIS STORY THAT INDICATE THE RATING THAT MARTIN SHOULD RECEIVE ON EACH PERFORMANCE FACTOR OF THE NAVY/MARINE CORPS-WIDE RATING FORM. LET'S GO THROUGH THE RATING FORM ONE FACTOR AT A TIME AND DISCUSS THE RATINGS.

WHAT RATING DID YOU GIVE MARTIN ON PERFORMANCE FACTOR 1: TECHNICAL KNOWLEDGE/SKILL?

ALLOW TIME FOR MEMBERS OF THE GROUP TO ANSWER, THEN SHOW OVERHEAD OF FACTOR 1 (SLIDE PF1) AND SAY: THE APPROPRIATE RATING WOULD BE A 3 ON THIS FACTOR BECAUSE THE SECOND PARAGRAPH STATES THAT MARTIN NEEDED SUPERVISION TO COMPLETE A DIFFICULT PART OF HIS TASK. THAT STATEMENT CORRESPONDS TO THE BEHAVIORAL EXAMPLE OF LEVEL 3. ANY QUESTIONS?

CONTINUE WITH EACH PERFORMANCE FACTOR IN THE SAME MANNER USING THE FOLLOWING DIALOGUE.

WHAT RATING DID YOU GIVE MARTIN ON PERFORMANCE FACTOR NUMBER 2: INITIATIVE/EFFORT?

SHOW SLIDE PF2.

THE APPROPRIATE RATING WOULD BE A 5. THE THIRD PARAGRAPH STATES: STAYING CALM AND IN CONTROL. HE VOLUNTEERED WITHOUT HESITATION TO STAY UNTIL THE TOOL WAS FOUND.

ANY QUESTIONS?

WHAT RATING DID YOU GIVE MARTIN ON PERFORMANCE FACTOR NUMBER 3: KNOWLEDGE OF AND ADHERENCE TO REGULATIONS/ORDERS?

SHOW SLIDE PF3.

THE APPROPRIATE RATING WOULD BE A 4. THE FOURTH PARAGRAPH STATES: THE NEXT MORNING, MARTIN WAS INFORMED TO REPORT TO THE AMO AT 1300 HOURS. AT 1300 HOURS, HE REPORTED TO THE AMO OFFICE.

ANY QUESTIONS?

WHAT RATING DID YOU GIVE MARTIN ON PERFORMANCE FACTOR NUMBER 4: INTEGRITY?

SHOW SLIDE PF4.

THE APPROPRIATE RATING WOULD BE A 5. THE THIRD PARAGRAPH STATES: PRIOR TO LEAVING, IT WAS DISCOVERED THAT A TOOL WAS MISSING. BEING A TRUTHFUL INDIVIDUAL, MARTIN INFORMED THE SHOP CHIEF IMMEDIATELY.

ANY QUESTIONS?

WHAT RATING DID YOU GIVE MARTIN ON PERFORMANCE FACTOR NUMBER 5: LEADERSHIP?

SHOW SLIDE PF5.

THE APPROPRIATE RATING WOULD BE A 5. PARAGRAPH TWO STATES: MARTIN SAID THAT THERE WOULD BE NO PROBLEM MEETING THAT DEADLINE AND HE QUICKLY TOOK CHARGE OF THE SITUATION, GAINING THE SUPPORT OF HIS SUBORDINATES.

ANY QUESTIONS?

WHAT RATING DID YOU GIVE MARTIN ON PERFORMANCE FACTOR NUMBER 6: MILITARY APPEARANCE?

SHOW SLIDE PF6.

THE APPROPRIATE RATING SHOULD BE A 5. THE FOURTH PARAGRAPH STATES: THE AMO SAID HIS APPEARANCE AND MILITARY BEARING WERE OUTSTANDING.

ANY QUESTIONS?

WHAT RATING DID YOU GIVE MARTIN ON PERFORMANCE FACTOR NUMBER 7: SELF DEVELOPMENT?

SHOW SLIDE PF7.

THE APPROPRIATE RATING WOULD BE A 4. THE LAST PARAGRAPH STATES: MARTIN WENT TO THE PUB ROOM TO CHECK OUT SOME PUBS TO STUDY THE PROBLEM ON THE NEXT ENGINE.

ANY QUESTION?

WHAT RATING DID YOU GIVE MARTIN ON PERFORMANCE FACTOR NUMBER 8: SELF CONTROL?

SHOW SLIDE PF8.

THE APPROPRIATE RATING WOULD BE A 5. THE FOURTH PARAGRAPH STATES: THE AMO CALLED HIM IN AND COMMENDED HIM ON A JOB WELL DONE AND ON HIS SELF CONTROL IN THE SITUATION OF THE MISSING TOOL.

ANY QUESTIONS?

NOTE: IF THERE IS DISAGREEMENT ON SOME OF THE RATINGS, DO NOT GO INTO A LENGTHY DISCUSSION ABOUT THE DIFFERENCES. SOME OF THE RATINGS MAY BE JUDGEMENT CALLS SINCE THEY ARE BASED ON LIMITED INFORMATION. CONSIDER IT TO BE SUFFICIENT IF A PERSON'S RATING IS WITHIN 1 POINT OF THE ASSIGNED RATING. EMPHASIZE TO THE GROUP THAT THE PRIMARY PURPOSE OF THE EXERCISE IS TO FAMILIARIZE THEM WITH THE RATING FORMS.

NOW TURN TO SECTION FIVE B. (EXERCISE II ON PAGE 19) IN YOUR TRAINING BOOKLET.

#### B. Exercise II - Dimensional Rating Form

Read the following story and use the information in it to complete a sample Dimensional Rating Form on Jones. Record your ratings in the Dimensional Rating section on the front of the answer sheet.

OMA DIMENSIONAL RATING FORM. SAY: THIS RATING FORM HAS TWO VERSIONS. ONE IS SPECIFICALLY DESIGNED FOR OMA PERSONNEL; THE OTHER FOR IMA. FOR PRACTICE PURPOSES, WE WILL ONLY USE THE OMA FORM. NOW, PLEASE READ THE STORY, MAKE AND RECORD YOUR RATINGS, AND THEN WE WILL DISCUSS THEM. HERE YOU WILL ONLY BE

CONCERNED WITH THE DIMENSIONAL SECTION OF THE ANSWER SHEET. [POINT TO SECTION]  
IF YOUR RATING FOR DIMENSION 3 IS A 2, CIRCLE THE 2 IN THE ROW LABELED D3 ON  
THE ANSWER SHEET.

## EXERCISE II

### DIMENSIONAL RATING FORM

During a recent Operational Readiness Inspection, Jones was called upon to troubleshoot an afterburner system malfunction on an F-4 aircraft. He was selected because he can complete most OMA maintenance tasks with only some supervision (D5-3). Jones required substantial assistance from his supervisor to diagnose that the afterburner fuel control valve was inoperative (D6-2). He removed and replaced the component in the required amount of time and without supervision (D2-3). He also inspected his work after completing the task and completed the required VIDS/MAF. He made all the proper entries, but needed some supervision in locating a couple of codes (D1-3). Smith reinspected the installation of the afterburner fuel control valve, finding only one minor discrepancy (D3-3), which Jones quickly corrected. Smith signed off the forms and the aircraft departed on schedule.

Later in the day, a request came in from another base to have an engine shipped to them as soon as possible. Jones was assigned to perform a quality inspection on the engine before shipment. He made a thorough inspection of the engine. Davis from quality control came in and made a follow-up inspection and noted only four minor discrepancies (D4-4). Jones ensured that the discrepancies were corrected, then the engine was prepared for air shipment.

CONDUCT THE DISCUSSION OF THE RATINGS IN THE SAME MANNER AS EXERCISE I, USING THE FOLLOWING DIALOGUE:

WHAT RATING DID YOU GIVE JONES ON DIMENSION NUMBER 1: COMPLETION OF FORMS?

SHOW SLIDE D1.

THE APPROPRIATE RATING WOULD BE A 3. THE SECOND PARAGRAPH STATES: HE MADE ALL THE PROPER ENTRIES BUT NEEDED SOME SUPERVISION IN LOCATING A COUPLE OF CODES.  
BEHAVIORAL EXAMPLE THREE READS...

ANY QUESTIONS?

WHAT RATING DID YOU GIVE JONES ON DIMENSION 2: REMOVE/REPLACE ENGINE  
COMPONENTS?

SHOW SLIDE D2.

THE APPROPRIATE RATING WOULD BE A 3. THE SECOND PARAGRAPH STATES: HE REMOVED  
AND REPLACED THE COMPONENT IN THE REQUIRED AMOUNT OF TIME AND WITHOUT  
SUPERVISION. THE BEHAVIORAL EXAMPLE READS...

ANY QUESTIONS?

WHAT RATING DID YOU GIVE JONES ON DIMENSION 3: INSPECT ENGINE?

SHOW SLIDE D3.

THE APPROPRIATE RATING WOULD BE A 3. THE SECOND PARAGRAPH STATES: SMITH REINSPECTED THE INSTALLATION OF THE AFTERBURNER FUEL CONTROL VALVE FINDING ONLY ONE MINOR DISCREPANCY.

ANY QUESTIONS?

WHAT RATING DID YOU GIVE JONES ON DIMENSION 4: QUALITY CONTROL?

SHOW SLIDE D4.

THE APPROPRIATE RATING WOULD BE A 4. THE THIRD PARAGRAPH STATES: HE MADE A THOROUGH INSPECTION OF THE ENGINE. DAVIS, FROM QUALITY ASSURANCE, CAME AND MADE A FOLLOW-UP INSPECTION AND NOTED ONLY FOUR MINOR DISCREPANCIES.

ANY QUESTIONS?

WHAT RATING DID YOU GIVE JONES ON DIMENSION 5: MAINTENANCE?

SHOW SLIDE D5.

THE APPROPRIATE RATING WOULD BE A 3. THE FIRST PARAGRAPH STATES: HE WAS SELECTED BECAUSE HE CAN COMPLETE MOST OMA MAINTENANCE TASKS WITH ONLY SOME SUPERVISION.

ANY QUESTIONS?

WHAT RATING DID YOU GIVE JONES ON DIMENSION 6: TROUBLESHOOT?

SHOW SLIDE D6.

THE APPROPRIATE RATING WOULD BE A 2. THE BEGINNING OF THE SECOND PARAGRAPH STATES: JONES REQUIRED SUBSTANTIAL ASSISTANCE FROM HIS SUPERVISOR TO DIAGNOSE THAT THE AB FUEL CONTROL VALVE WAS INOPERATIVE.

ANY QUESTIONS?

COLLECT THE TRAINING BOOKLETS AND THE SAMPLE ANSWER SHEETS.

-----TAKE A BREAK-----

HAND OUT THE CORRECT IMA OR OMA RATING FORM BOOKLETS AND ANSWER BOOKS TO THE RESPECTIVE IMA AND OMA INDIVIDUALS.

SAY:

#### VI. Conclusion

Now that you have become familiar with the rating forms and have practiced making ratings, you are ready to begin to use the forms to rate your performance or the performance of your coworkers or subordinates. Try to make the most accurate ratings possible, keeping in mind the tips that were discussed during this training session. Remember that the information

collected on the rating forms will be used for research purposes only. It will not go into anyone's record or be seen by persons other than research personnel. Please read all instructions carefully.

Remember that you will record your ratings on answer sheets.

**SHOW ANSWER SHEET SLIDE VI AS**

You will record your ratings on an answer sheet. Notice that there is room for your own name and social security number, as well as, the name and SSN of the person you are evaluating. Read each question carefully. If you are rating yourself, you should skip items 2-5 on the answer sheet and go directly to the Rating Forms General Instructions. If you are rating a peer or someone you supervise, you should answer items 2-5 then continue to the General Instructions on page 1 in the Rating Forms Booklet.

As you go through the rating forms, you should circle the number on the answer sheet that corresponds to the rating you assign to each item. For example, if you give a rating of 2 for Technical Proficiency, you should circle number two (2) in the TP row in the Technical Proficiency section of the answer sheet.

Notice that there are several questionnaires attached to the rating form answer sheet. The Rating Form Questionnaire asks you to give an evaluation of the rating forms. The General Background Questionnaire asks for information on yourself and the person you are rating. The Task Experience Questionnaire asks you to indicate how much experience you have had performing various tasks. Complete the Task Experience Questionnaire on yourself if you are a first-term jet engine mechanic. Do not complete the Task Experience Questionnaire when you rate your peers or subordinates. ONLY COMPLETE ONE RATING FORM

QUESTIONNAIRE, BACKGROUND QUESTIONNAIRE, AND EXPERIENCE QUESTIONNAIRE NO MATTER  
HOW MANY INDIVIDUALS YOU RATE.

NOW TURN TO PAGE 1 (GENERAL INSTRUCTIONS) OF THE RATING FORMS BOOK.

SLIDES FOR  
ADMINISTRATOR'S GUIDE

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RATING SCALE

Proficiency Base

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- 5 Always exceeds acceptable level of proficiency
- 4 Frequently exceeds acceptable level of proficiency
- 3 Meets acceptable level of proficiency
- 2 Occasionally meets acceptable level of proficiency
- 1 Never meets acceptable level of proficiency

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RATING SCALE

Performance Base

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- 5 Always exceeds acceptable level of performance
- 4 Frequently exceeds acceptable level of performance
- 3 Meets acceptable level of performance
- 2 Occasionally meets acceptable level of performance
- 1 Never meets acceptable level of performance

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## BEHAVIORAL EXAMPLES

### Quality Control

This refers to inspection of aircraft engines, engine components, and related equipment prior to Quality Assurance (QA) for the purpose of maintaining operational standards. Example: performing quality visual inspection (QVI) of engines.

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<u>Level</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of proficiency	5	The person accurately inspects engines or associated equipment for security/serviceability without supervision and in accordance with PUBs; consistently provides an outstanding overall inspection; often has a zero defect product; always makes a thorough inspection for FOD.
Frequently exceeds acceptable level of proficiency	4	The person inspects engines or associated equipment for security/serviceability with minimal supervision; provides an excellent overall inspection; locates all major and most minor discrepancies; always makes a thorough inspection for FOD.
Meets acceptable level of proficiency	3	The person requires some supervision to inspect engines or associated equipment for security/serviceability; finds most major discrepancies without supervision and may overlook some minor discrepancies; provides a satisfactory inspection of engine; usually inspects and ensures there is no FOD matter in the area.
Occasionally meets acceptable level of proficiency	2	The person will occasionally check the accuracy of his work after completion; is careless in inspecting for FOD; requires some supervision to find most major discrepancies; provides a marginal inspection of engine.
Never meets acceptable level of proficiency	1	The person rarely checks the accuracy of his work after completion; does not consider basic quality control duties, such as inspection for FOD, to be part of his job; requires constant supervision to find almost all discrepancies, whether major or minor.

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## BEHAVIORAL EXAMPLES

### Initiative/Effort

Showing initiative and extra effort on job/mission/assignment.

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<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of proficiency	5	Always volunteers when opportunities arise; demonstrates initiative promptly and effectively; enthusiastically works long, extra hours to ensure completion of project; works to completion when situation becomes difficult.
Frequently exceeds acceptable level of proficiency	4	Frequently volunteers and demonstrates initiative when opportunities arise; usually performs with enthusiasm despite difficulty; willing to work extra hours to complete assignment.
Meets acceptable level of proficiency	3	Volunteers for some assignments; willing to put in extra effort and time on priority tasks; does not give up easily when faced with obstacles or difficulty.
Occasionally meets acceptable level of proficiency	2	Seldom volunteers or displays initiative; may avoid difficult assignments; has a tendency to stop working when tired or bored; will work extra hours only when required.
Never meets acceptable level of proficiency	1	Displays no initiative and never volunteers for assignments; reluctant to work extra hours; may become hostile when asked to put forth extra effort; performs ineffectively due to lack of effort; gives up easily when faced with a difficult task.

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**APPENDIX B  
RATING FORMS**

**RATER TRAINING PROGRAM TRAINEE BOOKLET  
FOR  
NAVY/MARINE CORPS JET ENGINE MECHANICS**

## RATER TRAINING PROGRAM

### Trainee Booklet

#### I. INTRODUCTION

For the next several hours, your time will be spent focusing on the rating forms you will complete as part of this research project. You will use several rating forms to rate the performance of yourself, your coworkers or if you are a supervisor, your subordinates.

Before you use any of the rating forms, we are going to talk about each form, its purpose, and how to use each form to effectively rate an individual. We are also going to discuss some ideas that will help you use the rating forms and make the most accurate ratings possible.

It is essential to the outcome of this project that you be truthful and honest in your ratings. The ratings will not be seen by your coworkers, supervisor, or anyone else connected with your unit. The data collected will be seen only by Navy Personnel Research and Development Center personnel and the private contractor associated with this project. The information you provide will be coded to assure confidentiality and the rating forms will subsequently be destroyed. The ratings will be used for research purposes only and will in no way effect anyone's career. Therefore, please rate each person as accurately as possible.

## II. EXPLANATION OF RATING SCALE

- A. Each rating form uses a 5-point scale (5 high - 1 low). To help you make more accurate ratings, the points on the scale are labeled, or anchored. You will notice that these anchors describe a certain level of proficiency. Proficiency refers to how skilled a person is at performing various tasks on the job, ignoring interpersonal factors (willingness to work, cooperating with others) or situational factors (lack of tools or parts, weather conditions).
- B. One of the rating forms you will be using is not technical in its orientation. The scale anchors of this form refer to various levels of performance rather than levels of proficiency. This rating form will examine not only ability, but also other factors that contribute to a mechanic's performance on the job.
- C. Three of the rating forms will include short paragraphs that describe behavior typical to each level on the scale. These behavioral examples will aid you in making your ratings.

## III. EXPLANATION OF RATING FORMS

### A. Global Rating Form

This rating form has two items. The first item asks for a rating of a person's overall technical proficiency. The second item asks for a rating of a person's overall social/interpersonal proficiency. This form utilizes behavioral examples to aid you in making your ratings.

B. Dimensional Rating Form

The purpose of this rating form is to evaluate a mechanic's performance or level of proficiency on a number of important job areas or dimensions. Again, the behavioral examples will serve as a guide in determining your ratings.

C. Task Rating Form

The purpose of this rating form is to evaluate performance on a variety of tasks critical to first-term Navy/Marine Corps Jet Engine Mechanics. This form contains tasks performed by J-79 jet engine mechanics at both the IMA and OMA as well as tasks unique to each maintenance activity.

D. Navy/Marine Corps-Wide Rating Form

This rating form does not evaluate technical job skill. It rates a person on elements important to overall success in the Navy/Marine Corps. This is the rating form mentioned previously that uses performance rather than proficiency as a basis for rating scale anchors. Again,, you will utilize behavioral examples in making your ratings.

#### IV. TIPS ON MAKING ACCURATE RATINGS

##### A. General Information

The most important thing to remember when making your ratings is to focus your attention only on the person you are rating and only on the person's ability to perform. Avoid comparing the person with coworkers you've rated previously or those you will subsequently evaluate.

Remember that even though you and the people you rate are similar because you are all Jet Engine Mechanics, each person has a unique set of strengths and weaknesses. Also, be aware that poor or outstanding performance in one area does not dictate the quality of performance in other areas. Rate the person according to the individual's ability to perform on the job and focus on observable behavior. Finally, do not be afraid to use the entire range of the scale when appropriate. Your honesty will serve to ensure the accuracy of your ratings.

B. Exercise

The following is a conversation between several engine crew chiefs. Read it and see if you can identify factors that might contribute to inaccurate ratings.

Andrews: Here we are again at our weekly gripe session.

Baker: Yeah. Seems like we never run out of problems to complain about.

Cullen: I don't know why you guys have so many problems on your crew.

Baker: Because we don't have the cream of the crop that you have.

Cullen: You've got the same kind of guys working for you that I have. Just think about it. All the service men take tests to identify who has the aptitude for what. Right?

Andrews: Right.

Cullen: OK. So you've got a bunch of guys with mechanical aptitude. These guys all receive the same training at tech school to learn to be competent mechanics. They all come out of tech school with the same training. That's the purpose of tech school. So there shouldn't be anyone on your crew who is more qualified to do the job than someone else. Granted, if you take any one of the mechanics and compare him to the average guy on the street, sure, he is going to look like a mechanical genius. But among his fellow crew members, he's just another average guy like all the rest.

Andrews: I disagree. On my crew, I've got a couple of guys who are just outstanding. Next to these guys, the rest of my people are way below average.

Baker: I know what you mean. I received a new recruit two weeks ago. You wouldn't believe how badly he has performed in the short time he's been here. I guess I've got a real loser on my hands. He'd be right at home with your guys, Andrews.

Davis: I guess I sort of understand what you are talking about. But on the other side of the coin, the last recruit that come onto my crew was fresh out of tech school. He hadn't been here but a week or so and I gave him a VIDS/MAF to complete. Well, he completed the form without even asking a question and used the Code Manual like a pro. I figure I have a super mechanic in this guy. I mean, if he can do that, he can do just about anything I assign him to do.

Andrews: You know, Cullen, I've heard how difficult you can be when you rate your men. I've heard some of your people complain that no matter how hard they try, you won't give them more than an average rating. They say they feel like they're banging their heads against a brick wall.

Cullen: I have a pretty good idea who you're talking about. If they think it's hard to get a good rating out of me now, just wait until I rate them next time. They'll find out how hard a brick wall really is.

Andrews: I guess I don't think like you guys at all. I try to be a friend to my men. Some of them are away from home for the first time and I don't like to make it any rougher on them than I need to. I try to give my men the benefit of a doubt when I'm rating them. You'd be surprised what you learn about your men if you try to be their friend. For instance, there's a guy in my crew now who reminds me of myself when I was his age. He's from a small town and joined the service to get away from that atmosphere and see a little of the world. I can really identify with him.

Davis: Well, I don't know about being buddy-buddy with my men, but I do know that right now everyone in my unit is doing a good job as far as I'm concerned.

Andrews: Why is that?

Davis: Well, I'm up for promotion in a couple of months. And let's face it, the better my men look on their ratings, the better I look as a supervisor. And the better I look, the better my chances are for promotion!

**STOP WAIT FOR FURTHER INSTRUCTIONS**

#### **V. PRACTICE EXERCISES FOR RATING FORMS**

Now you will have the opportunity to practice using two of the rating forms that have been discussed, the Navy/Marine Corps-Wide and the Dimensional. The

purpose of these exercises is to help you become familiar and comfortable with the forms and to address any questions or concerns you might have regarding their use.

A. Exercise I - Navy/Marine Corps-Wide Rating Form

Read the following story and use the information in it to complete a sample Navy/Marine Corps-Wide Rating Form on Martin. Record your responses in the Navy/Marine Corps-Wide section of the sample answer sheet.

EXERCISE I

NAVY/MARINE CORPS-WIDE RATING FORM

Martin, an engine crew chief, was in the process of reassembling his engine when the shop chief informed him that the engine had to be ready for final inspection by Friday.

Martin said that there would be no problem meeting that deadline and he quickly took charge of the situation, gaining the support of his subordinates. Using his technical knowledge and skills, he finished the assembly late Thursday afternoon but required supervision during the buildup of the hot section.

Prior to leaving, it was discovered that a tool was missing. Being a truthful individual, and knowing the importance of the situation, Martin informed the shop chief immediately. Staying calm and in control, he volunteered, without hesitation, to stay until the tool was found.

The next morning, Martin was informed to report to the Aircraft Maintenance Officer (AMO) at 1300. At 1300 he reported to the AMO's office. The AMO called him in and commended him on a job well done and on his self control in the situation of the missing tool. Also, the AMO said his appearance and military bearing were outstanding and to keep up the good work.

After getting off duty later that day, Martin went to the Publication room to check out some PUBs to study the problem on the engine he was getting next.

#### INSTRUCTIONS FOR EXERCISE I

Complete the following sample Navy/Marine Corps-Wide rating form using the information you have just read about Martin. Read each Performance Factor and rate Martin on each factor. Record your responses in the Navy/Marine Corps-Wide section of the sample answer sheet. We will discuss your ratings when everyone is finished.

## NAVY/MARINE CORPS-WIDE RATING FORM

The purpose of this rating form is to allow you to evaluate an individual's performance on factors important to all sailors or marines regardless of rating or MOS.

Listed below are the factors on which you should rate the individual's performance.

1. Technical Knowledge/Skill
2. Initiative/Effort
3. Knowledge of and Adherence to Regulations/Orders
4. Integrity
5. Leadership
6. Military Appearance
7. Self Development
8. Self Control

On the pages that follow, read the definition of each performance factor carefully. Use the behavioral examples as indicators of behavior typically displayed at the various levels. Circle the number on the answer sheet that corresponds to the level best describing the individual's performance in each area.

The five levels that will be used on this rating form are listed below:

- 5 -- Always exceeds acceptable level of proficiency
- 4 -- Frequently exceeds acceptable level of proficiency
- 3 -- Meets acceptable level of proficiency
- 2 -- Occasionally meets acceptable level of proficiency
- 1 -- Never meets acceptable level of proficiency

PLEASE RATE ALL PERFORMANCE FACTORS

Performance Factor 1 (PF1): Technical Knowledge/Skill

Displaying job knowledge and skill.

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of performance	5	Displays exceptional knowledge/skill to consistently complete assignments and tasks properly; requires little or no supervision; completes tasks in minimum time.
Frequently exceeds acceptable level of performance	4	Displays considerable knowledge and skill to complete assignments and tasks properly; performs effectively with little supervision; completes tasks quicker than average first-term sailors or marines.
Meets acceptable level of performance	3	Displays good knowledge/skill in most aspects of the job; able to properly complete the majority of tasks; requires supervision only on difficult tasks and assignments; completes work in the same time as other first-term sailors or marines.
Occasionally meets acceptable level of performance	2	Occasionally displays adequate knowledge about how to complete tasks and assignments; quality of work is inconsistent; requires direct supervision on most tasks to ensure quality and accuracy; usually completes tasks within required time.
Never meets acceptable level of performance	1	Does not display knowledge and skill necessary to properly complete tasks and assignments; unable to perform without direct supervision; often fails to complete assignments; performs slower than other first-term sailors or marines.

## Performance Factor 2 (PF2): Initiative/Effort

Showing initiative and extra effort on job/mission/assignment.

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of performance	5	Always volunteers when opportunities arise; demonstrates initiative promptly and effectively; enthusiastically works extra hours to ensure completion of project; works to completion when situation becomes difficult.
Frequently exceeds acceptable level of performance	4	Frequently volunteers and demonstrates initiative when opportunities arise; usually performs with enthusiasm despite difficulty; willing to work extra hours to complete assignment.
Meets acceptable level of performance	3	Volunteers for some assignments; willing to put in extra effort and time on priority tasks; does not give up easily when faced with obstacles or difficulty.
Occasionally meets acceptable level of performance	2	Seldom volunteers or displays initiative; may avoid difficult assignments; has a tendency to stop working when tired or bored; will work extra hours only when required.
Never meets acceptable level of performance	1	Displays no initiative and never volunteers for assignments; reluctant to work extra hours; may become hostile when asked to put forth extra effort; performs ineffectively due to lack of effort; gives up easily when faced with a difficult task.

3

Performance Factor 3 (PF3): Knowledge of and Adherence to Regulations/Orders

Displaying knowledge of and adhering to Naval/Marine Corps unit rules, regulations, and orders and displaying respect for authority.

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<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of performance	5	Demonstrates an exceptional knowledge and understanding of Naval/Marine Corps unit rules and regulations. Follows the spirit as well as the letter of rules and regulations; obeys orders quickly; always reports promptly for duty, formations, appointments, etc.; remains alert while on duty even when it is inconvenient to do so.
Frequently exceeds acceptable level of performance	4	Demonstrates an excellent knowledge and understanding of Naval/Marine Corps unit rules and regulations; follows rules and regulations without fail; always obeys orders; can be counted on to be at appointed area on time; displays appropriate respect for authority.
Meets acceptable level of performance	3	Follows Naval/Marine Corps unit rules and regulations almost without fail; is knowledgeable of those rules and regulations that concern safety or security; rarely late for duty or formation; never leaves assigned duty section; always obeys orders.
Occasionally meets acceptable level of performance	2	Occasionally may fail to follow Naval/Marine Corps rules or regulations; occasionally late for duty formations; usually obeys orders but may question them.
Never meets acceptable level of performance	1	Ignores or fails to follow Naval/Marine Corps rules, regulations, or orders; often displays lack of respect toward superiors; may leave assigned work area.

#### Performance Factor 4 (PF4): Integrity

Displaying honesty and integrity in job-related matters.

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of performance	5	Can be trusted to be honest and truthful in all matters even when own self interests might be jeopardized; takes extra steps to protect the security of military equipment/supplies; voluntarily reports thefts, misconduct, and any other violations of military order and discipline.
Frequently exceeds acceptable level of performance	4	Admits job-related mistakes and provides information necessary for administrative decisions; voluntarily reports thefts, misconduct, and other incidents of military violation; never misuses military equipment/supplies.
Meets acceptable level of performance	3	Admits job-related mistakes and provides information necessary for administrative decisions; reports obvious misconduct and military violations; unlikely to misuse military equipment/supplies; returns found property to rightful owner.
Occasionally meets acceptable level performance	2	Seldom admits job-related mistakes and may make excuses to avoid responsibility for such mistakes; will provide information regarding thefts, misconduct, and other military violations if asked by supervisor but will not volunteer such information; returns found property to rightful owner.
Never meets acceptable level of performance	1	Denies responsibility for job-related mistakes and puts the blame on someone else; assists in covering up or is otherwise directly involved in incidents of theft, misconduct, and other military violations; dishonest and deceitful in dealings with supervisor and peers; falsifies military forms, vouchers, or records to further personal gain.

### Performance Factor 5 (PF5): Leadership

Performing in a leader role, as required, and providing support for fellow unit members.

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of performance	5	Performs very effectively when placed in leadership position; takes charge when necessary and fills in effectively for supervisor; is sought out as a resource person and serves as a role model; always looks out for and supports fellow unit members when they are in trouble, need encouragement, performing poorly, etc.
Frequently exceeds acceptable level performance	4	Performs effectively in structured leadership situations; usually looks out for and supports fellow unit members when they are in trouble, need encouragement, performing poorly, etc.
Meets acceptable level of performance	3	Performs effectively in structured leadership situations and less well in difficult situations requiring hard judgments and quick decisions; is supportive of fellow unit members at important times.
Occasionally meets acceptable level of performance	2	Seldom effective in leadership positions; will not go out of way to provide support, encouragement, etc., to fellow unit members; reluctant to help others complete their assignments.
Never meets acceptable level of performance	1	Unable to perform in leadership positions; unable to step in and take charge even when necessary; unwilling to provide support, encouragement, etc., to fellow unit members; shows impatience and insensitivity to other unit personnel.

## Performance Factor 6 (PF6): Military Appearance

Maintaining proper military appearance and meeting military standards for physical fitness.

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of performance	5	Always properly and neatly dressed, even beyond the requirements of military standards; consistently presents an impressive appearance; maintains excellent personal hygiene and cleanliness even under dirty or difficult conditions; is in excellent physical condition and substantially exceeds Naval/Marine Corps standards for physical stamina and strength.
Frequently exceeds acceptable level of performance	4	Maintains a crisp, neat military appearance; maintains personal hygiene and cleanliness; is in excellent physical condition and often exceeds Naval/Marine Corps standards for physical stamina and strength.
Meets acceptable level of performance	3	Dresses neatly and properly during duty, and at inspections; pays sufficient attention to personal cleanliness and hygiene to meet military standards; is in good physical condition and meets Naval/Marine Corps standards for weight, physical stamina, and strength.
Occasionally meets acceptable level of performance	2	Usually dresses properly for inspections but often fails to present a proper military appearance on a daily basis; is in fair physical condition and may fail Naval/Marine Corps standards for weight, physical stamina, or strength.
Never meets acceptable level of performance	1	Consistently dresses sloppily and/or improperly for duty and at inspections; fails to attend to personal cleanliness and hygiene; is in poor physical condition and fails Naval/Marine Corps standards for weight, physical stamina, and strength.

### Performance Factor 7 (PF7): Self Development

Developing job-related skills.

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of performance	5	Devotes a substantial amount of off-duty time to studying and practicing to become as proficient as possible in important job-related skills; enthusiastically takes on additional job duties and responsibilities to prepare for promotion; actively seeks out opportunities for self-improvement; completes Naval/Marine Corps course requirements in less than prescribed time, and consistently obtains above-average scores.
Frequently exceeds acceptable level of performance	4	Studies and practices during off-duty hours to improve job-related skills; takes advantage of most opportunities presented to take on additional responsibility that would help prepare for promotion; completes Naval/Marine Corps course requirements in less than required time.
Meets acceptable level of performance	3	Is aware of personal weakness in job-related skills and participates in training programs to improve these areas; sometimes reluctant to take on extra responsibility that would help prepare for promotion; completes Naval/Marine Corps course requirements within prescribed time.
Occasionally meets acceptable level of performance	2	Participates half-heartedly without seriously applied effort in training programs; studies manuals or practices to improve job skills only when ordered to do so; avoids additional responsibility that might help prepare for promotion; may require retesting to fulfill Naval/Marine Corps course requirements.
Never meets acceptable level of performance	1	Does not participate in training programs; makes no effort to improve below standard job skills; fails Naval/Marine Corps course requirements due to lack of interest, effort, or attention.

### Performance Factor 8 (PF8): Self Control

Controlling personal behavior.

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<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of performance	5	Meets all financial obligations; consistently displays exceptional emotional maturity; does not allow personal matters to interfere with professional duties.
Frequently exceeds acceptable level of performance	4	Meets all financial obligations; usually displays appropriate emotional behavior and control; does not allow personal problems to influence job performance.
Meets acceptable level of performance	3	Meets most financial and legal obligations; related problems are minor and infrequent and rarely interfere with job performance; usually displays emotional maturity.
Occasionally meets acceptable level of performance	2	Frequently has financial problems due to lack of self discipline; attempts to control temper and emotional behavior but frequently fails to do so; allows personal matters to effect job performance.
Never meets acceptable level of performance	1	Does not attempt to control temper or otherwise displays inappropriate behavior; consistently requires time off from duty to attend to financial, legal, or other personal problems.

STOP WAIT FOR FURTHER INSTRUCTIONS

B. Exercise II - Dimensional Rating Form

Read the following story and use the information in it to complete a sample Dimensional Rating Form on Jones. Record your ratings in the Dimensional Rating section of the sample answer sheet.

EXERCISE II  
DIMENSIONAL RATING FORM

During a recent Operational Readiness Inspection, Jones was called upon to troubleshoot an afterburner system malfunction on an F-4 aircraft. He was selected because he can complete most OMA maintenance tasks with only some supervision.

Jones required substantial assistance from his supervisor to diagnose that the afterburner fuel control valve was inoperative. He removed and replaced the component in the required amount of time and without supervision. He also inspected his work after completing the task and completed the required VIDS/MAF. He made all the proper entries, but needed some supervision in locating a couple of codes. Smith reinspected the installation of the afterburner fuel control valve, finding only one minor discrepancy, which Jones quickly corrected. Smith signed off the forms and the aircraft departed on schedule.

Later in the day, a request came in from another air station to have an engine shipped to them as soon as possible. Jones was assigned to perform a quality inspection on the engine before shipment. He made a thorough inspection of the engine. Davis from quality control came in and made a

follow-up inspection and noted only four minor discrepancies. Jones ensured that the discrepancies were corrected, then the engine was prepared for air shipment.

## DIMENSIONAL RATING FORM

The purpose of this rating form is to evaluate an individual's level of proficiency on groups of tasks, or dimensions. Remember, proficiency refers to how skilled someone is at performing various tasks on the job, ignoring interpersonal factors (willingness to work, cooperating with others) or situational factors (lack of tools or parts, weather conditions).

Listed below are the dimensions on which you will rate the individual.

1. Completion of Forms
2. Remove/Replace Engine Components
3. Inspect Engine
4. Quality Control
5. IMA Maintenance
6. Preparation for Storage or Shipping

On the pages that follow, read the definition of each dimension carefully. Use the behavioral examples as indicators of the quality of work performed at the various levels. Circle the number on the answer sheet that corresponds to the individual's level of proficiency on each dimension.

The five levels that will be used on this rating form are listed below:

- 1 -- Always exceeds acceptable level of proficiency
- 2 -- Frequently exceeds acceptable level of proficiency
- 3 -- Meets acceptable level of proficiency
- 4 -- Occasionally meets acceptable level of proficiency
- 5 -- Never meets acceptable level of proficiency

PLEASE RATE ALL DIMENSIONS

Dimension 1 (D1): Completion of Forms

This refers to preparation and completion of required paperwork. Example: Visual Identification Display System/Maintenance Action Forms (VIDS/MAF).

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of proficiency	5	Completes required paperwork in a timely manner without errors or supervision; demonstrates exceptional knowledge of the Work Unit Code Manual.
Frequently exceeds acceptable level of proficiency	4	Completes required paperwork in a timely manner with only minor errors and minimal supervision; demonstrates a good working knowledge of the Work Unit Code Manual.
Meets acceptable level of proficiency	3	Usually completes required paperwork in a timely manner with few errors; requires some supervision obtaining proper codes from the Work Unit Code Manual.
Occasionally meets acceptable level of proficiency	2	Is often late in completing required paperwork; forms and tags contain numerous errors; possesses only a limited knowledge of the Work Unit Code Manual.
Never meets acceptable level of proficiency	1	Requires direct supervision when completing required paperwork; entries on forms and tags require constant correction by supervisor; is unable to use the Work Unit Code Manual.

## Dimension 2 (D2): Remove/Replace Engine Components

This refers to the entire procedure of removing/replacing any engine component. Example: Removing/replacing complex system components such as fuel control or CSD; removing/replacing simple system components such as tachometer generator.

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of proficiency	5	Removes/replaces complex system components without supervision; is able to complete all remove/replace tasks in less than the required time; demonstrates an exceptional understanding and knowledge of technical publications (Pubs).
Frequently exceeds acceptable level proficiency	4	Removes/replaces complex system components with some supervision; completes all of remove/replace tasks within required time; requires minimal supervision in use of Pubs only on certain tasks.
Meets acceptable level of proficiency	3	Removes/replaces complex system components with some supervision; removes/replaces simple system components without supervision; usually completes tasks within required time; locates appropriate Pub and usually uses it without supervision.
Occasionally meets acceptable level of proficiency	2	Removes/replaces simple system components with some supervision; requires substantial supervision when removing/replacing complex system components; usually takes longer than required time to complete tasks; able to locate appropriate Pub but must have supervision in interpretation and use.
Never meets acceptable level of proficiency	1	Fails to remove/replace simple system components even with constant supervision; often unable to determine appropriate Pub for task; unable to interpret Pub without direct supervision.

Dimension 3 (D3): Inspect Engine

This refers to inspection of engine and engine components to ensure that equipment is safe and operable. Example: Inspecting engine plumbing.

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of proficiency	5	Quickly and easily identifies out of limits damage without supervision; inspects all external components and plumbing without supervision; able to analyze and understand causes of failures/ malfunctions; demonstrates an exceptional understanding and knowledge of the relevant Pubs.
Frequently exceeds acceptable level of proficiency	4	Recognizes most out of limits damage with minimal supervision; completes inspection tasks quickly and accurately; inspects all external components and plumbing with minimal supervision; understands causes of most failures/ malfunctions; requires minimal supervision in use of Pub only on certain major or complicated inspection tasks.
Meets acceptable level of proficiency	3	Recognizes most out of limits acceptable damage with some supervision; usually completes inspection tasks within a reasonable amount of time; requires some supervision when inspecting external components and plumbing to ensure accuracy; understands causes of simple malfunctions but may require supervision to understand causes of more complicated failures; locates appropriate Pub and usually uses it without supervision.
Occasionally meets acceptable level of proficiency	2	Requires a substantial amount of and supervision to recognize out of limits damage; has a limited understanding of causes of most failures/malfunctions; able to locate appropriate Pub but must have supervision in interpretation and use.
Never meets acceptable level of proficiency	1	Requires constant supervision to recognize out of limits damage; is unable to understand causes of even the simplest malfunctions; requires more time than other first termers to do simple inspection tasks; unable to distinguish between Pubs to find appropriate one for task; unable to interpret Pubs without constant supervision.

Dimension 4 (D4): Quality Control

This refers to inspection of aircraft engines, engine components, and related equipment prior to Quality Assurance (QA) for the purpose of maintaining operational standards. Example: Performing visual inspections of engines.

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of proficiency	5	The person accurately inspects engines or associated equipment for security/serviceability without supervision and in accordance with Pub; consistently provides an outstanding overall inspection; often has a zero defect product; always makes a thorough inspection for FOD.
Frequently exceeds acceptable level of proficiency	4	The person inspects engines or associated equipment for security/serviceability with minimal supervision; provides an excellent overall inspection; locates all major and most minor discrepancies; always makes a thorough inspection for FOD.
Meets acceptable level of proficiency	3	The person requires some supervision to inspect engines or associated equipment for security/serviceability; finds most major discrepancies without supervision and may overlook some minor discrepancies; provides a satisfactory inspection of engine; usually inspects and ensures there is no FOD matter in the area.
Occasionally meets acceptable level of proficiency	2	The person will occasionally check the accuracy of his work after completion; is careless in inspecting for FOD; finds most major discrepancies and misses numerous minor discrepancies; provides a marginal inspection of engine.
Never meets acceptable level of proficiency	1	The person rarely checks the accuracy of his work after completion; does not consider basic quality control duties, such as inspection for FOD, to be part of his job; requires constant supervision to find almost all discrepancies, whether major or minor.

### Dimension 5 (D5): IMA Maintenance

This refers to specialized maintenance tasks performed at the IMA.  
Example: Assembling engine.

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of proficiency	5	Disassembles/assembles engine without supervision; removes/replaces combustion section without supervision.
Frequently exceeds acceptable level of proficiency	4	Has no difficulty disassembling engine, requires minimal supervision during assembly stage; requires minimal supervision removing/replacing combustion section and using critical measurements.
Meets acceptable level of proficiency	3	Requires substantial supervision assembling engine, but has no difficulty with disassembly tasks; requires some supervision when removing/replacing combustion section and using critical measurements.
Occasionally meets acceptable level of proficiency	2	Requires constant supervision at all stages of assembly and substantial supervision on disassembly tasks; requires substantial supervision when removing/replacing combustion section and using critical measurements.
Never meets acceptable level of proficiency	1	Requires constant supervision on almost all phases of assembly/disassembly; requires constant supervision in performing most specialized maintenance tasks.

#### Dimension 6 (D6): Preparation for Storage or Shipping

This refers to procedures involved in preparing engine, engine components, or containers for storage or shipping. Example: Removing Quick Engine Change (QEC) kits for storage.

<u>Levels</u>	Circle the <u>Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of proficiency	5	Removes Quick Engine Change (QEC) kits for repair or storage and purges and prepares engine for storage/shipping without supervision; completes all related tasks in minimal amount of time and without supervision.
Frequently exceeds acceptable level of proficiency	4	Purges and prepares engine for storage/shipping with minimal supervision; performs most storage/shipping tasks without supervision and in a minimal amount of time.
Meets acceptable level of proficiency	3	Requires some supervision when removing QEC kit for repair or storage and when purging and preparing engine for storage/shipping; marks wrapped engine or engine containers accurately and without supervision; performs most related tasks with minimal supervision and in an acceptable amount of time.
Occasionally meets acceptable level of proficiency	2	May fail to remove some QEC kit items; may fail to properly purge all systems; requires substantial supervision when marking wrapped engine or engine containers; performs most related tasks with some supervision.
Never meets acceptable level of proficiency	1	Requires constant supervision on all storage/shipping tasks; when instructed to remove QEC kit, has trouble determining which are QEC kit items and may remove wrong items; requires constant supervision to accurately mark wrapped engine or engine containers.

STOP WAIT FOR FURTHER INSTRUCTIONS

## VI. CONCLUSION

Now that you have become familiar with the rating forms and have practiced making ratings, you are ready to begin to use the forms to rate your performance or the performance of your coworkers or subordinates. Try to make the most accurate ratings possible, keeping in mind the tips that were discussed during this training session. Remember that the information collected on the rating forms will be used for research purposes only. It will not go into anyone's record or be seen by persons other than research personnel. Please read all instructions carefully.

Remember that you will record your ratings on answer sheets. You will record your ratings on an answer sheet. Notice that there is room for your own name and social security number, as well as, the name and SSN of the person you are evaluating. Read each question carefully. If you are rating yourself, you should skip items 2-5 on the answer sheet and go directly to the Rating Forms General Instructions. If you are rating a peer or someone you supervise, you should answer items 2-5 then continue to the General Instructions on page 1 in the Rating Forms Booklet.

As you go through the rating forms, you should circle the number on the answer sheet that corresponds to the rating you assign to each item. For example, if you give a rating of 2 for Technical Proficiency, you should circle number two (2) in the TP row in the Technical Proficiency section of the answer sheet.

Notice that there are several questionnaires attached to the rating form answer sheet. The Rating Form Questionnaire asks you to give an evaluation of the rating forms. The General Background Questionnaire asks for information on yourself and the person you are rating. The Task Experience Rating Question-

naire asks you to provide information on how much experience you have had performing various tasks. Complete the Task Experience questionnaire on yourself if you are a first-term jet engine mechanic. Do not complete the Task Experience Questionnaire when you are making the ratings on your peers or subordinates. Only complete one Rating Form Questionnaire, Background Questionnaire, and Experience Questionnaire no matter how many individuals you rate.

**APPENDIX C**  
**RATING FORM BOOKLET**  
**FOR**  
**NAVY/MARINE CORPS J-79 JET ENGINE MECHANICS**  
**AT THE**  
**INTERMEDIATE MAINTENANCE ACTIVITY (IMA)**

## GENERAL INSTRUCTIONS

You are being asked to participate in a research project aimed at determining how useful different types of rating forms are for evaluating a first-term jet engine mechanic's job performance. Throughout the project, first-term Jet Engine Mechanics will be asked to complete these rating forms on themselves and some of their co-workers. In addition, NCOs who are direct supervisors of the Jet Engine Mechanics will be asked to provide evaluations.

The information provided from the rating forms will be used solely for research purposes. It will not be seen by other jet engine mechanics or anyone else connected with your unit. In fact, we are not concerned with the ratings an individual receives or with how an individual rates others. The purpose of this project is to answer the question, "Which rating forms are most useful for making accurate evaluations?" These ratings will in no way be associated with you or anyone else involved, so please be totally honest in your evaluations.

Information will be collected from many Jet Engine Mechanics at a number of bases across the country. These data will help us decide which rating forms improve the chances of getting accurate evaluations. In addition, information will be gathered about recruit qualities that lead to success in the Navy/Marine Corps. Because subsequent decisions regarding the quality of the various rating forms will be based on information provided by participants such as yourself, it is essential that you take whatever time is necessary to give the most accurate ratings possible.

This rating form packet contains four (4) different rating forms. Each rating form was developed through extensive contact with Jet Engine Mechanics. These job experts both developed and reviewed these forms and therefore, we believe the content of the forms accurately reflects the job of a Jet Engine Mechanic. These four rating forms will include a 2-item global rating form, a set of Navy/Marine Corps wide ratings, a more specific dimensional rating form, and a detailed task-specific form.

All ratings are made on a scale with five points (5-high, 1-low). A rating of 5 indicates that you always exceed the acceptable level of proficiency and a rating of 1 that you never meet the acceptable level of proficiency. Specific instructions for completing each rating form are included as part of the form.

Use the accompanying answer sheet to record your response to the rating forms, then complete the self-explanatory questionnaires attached to the answer sheet.

Thank you very much for giving this your careful attention.

STOP

WAIT FOR FURTHER INSTRUCTIONS

## GLOBAL RATING FORM

The purpose of this rating form is to allow you to evaluate an individual's overall level of technical and interpersonal proficiency. A five-point rating scale will be provided on each of the next two pages.

Technical proficiency refers to how skilled someone is at performing various tasks on the job, ignoring interpersonal factors (willingness to work, cooperation with others) or situational factors (lack of tools or parts, weather conditions).

Interpersonal proficiency refers to how well someone works with various levels of supervision and how cooperative the individual is on a task requiring team effort.

Use the behavioral examples as illustrations of the quality of work performed at that level. On the answer sheet, circle the number that corresponds to the individual's overall level of job proficiency.

The five levels that will be used on this rating form are listed below:

- 5 -- Always exceeds acceptable level of proficiency
- 4 -- Frequently exceeds acceptable level of proficiency
- 3 -- Meets acceptable level of proficiency
- 2 -- Occasionally meets acceptable level of proficiency
- 1 -- Never meets acceptable level of proficiency

PLEASE RATE BOTH ITEMS

## TECHNICAL PROFICIENCY (TP)

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of proficiency	5	Completes all sections of required tasks without supervision and with few minor errors; is able to remove or replace minor/major components with no supervision and with few or no errors; always brings the correct materials to worksite.
Frequently exceeds acceptable level of proficiency	4	Completes all sections of required tasks with little or no supervision and few errors; is able to remove or replace minor/major components with no supervision and with few or no errors; always brings the correct materials to worksite.
Meets acceptable level of proficiency	3	Completes all sections of tasks with minimal supervision and an acceptable number of errors; is able to remove or replace minor components with minimal supervision and an acceptable number of errors; usually brings the correct materials to worksite.
Occasionally meets acceptable level proficiency	2	Requires direct supervision or assistance on certain tasks in order to avoid of numerous errors; is able to remove or replace minor components with some supervision or assistance; occasionally brings correct materials to worksite.
Never meets acceptable level of proficiency	1	Is unable to complete tasks without direct supervision; is unable to remove or replace minor components without direct supervision or assistance; and never brings correct materials to worksite.

## INTERPERSONAL PROFICIENCY (IP)

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<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level proficiency	5	Always works well with all levels of supervision and coworkers; works effectively on tasks requiring teamwork or cooperation; willing to assist coworkers in completing a high priority task without being asked by the supervisor.
Frequently exceeds acceptable level proficiency	4	Frequently works well with all levels of supervision and coworkers; works effectively on tasks requiring teamwork or cooperation; often willing to assist coworkers in completing a high priority task without being asked by the supervisor.
Meets acceptable level of proficiency	3	Cooperates with most supervisors and coworkers; usually works effectively on tasks requiring teamwork or cooperation; will assist coworkers in completing a high priority task only if asked by the supervisor.
Occasionally meets acceptable level proficiency	2	Cooperates with only a select group of supervisors and coworkers; rarely works effectively on tasks requiring teamwork or cooperation; reluctantly assists coworkers in completing a high priority task if asked by the supervisor.
Never meets acceptable level proficiency	1	Is uncooperative and ineffective when working on a task requiring teamwork or cooperation; unreceptive to guidance by supervisors or coworkers; doesn't care about functioning as a unit or crew.

## DIMENSIONAL RATING FORM

The purpose of this rating form is to evaluate an individual's level of proficiency on groups of tasks, or dimensions. Remember, proficiency refers to how skilled someone is at performing various tasks on the job, ignoring interpersonal factors (willingness to work, cooperating with others) or situational factors (lack of tools or parts, weather conditions).

Listed below are the dimensions on which you will rate the individual.

1. Completion of Forms
2. Remove/Replace Engine Components
3. Inspect Engine
4. Quality Control
5. IMA Maintenance
6. Preparation for Storage or Shipping

On the pages that follow, read the definition of each dimension carefully. Use the behavioral examples as indicators of the quality of work performed at the various levels. Circle the number on the answer sheet that corresponds to the individual's level of proficiency on each dimension.

The five levels that will be used on this rating form are listed below:

- 1 -- Always exceeds acceptable level of proficiency
- 2 -- Frequently exceeds acceptable level of proficiency
- 3 -- Meets acceptable level of proficiency
- 2 -- Occasionally meets acceptable level of proficiency
- 1 -- Never meets acceptable level of proficiency

PLEASE RATE ALL DIMENSIONS

### Dimension 1 (D1): Completion of Forms

This refers to preparation and completion of required paperwork.  
Example: Visual Identification Display System/Maintenance Action Forms (VIDS/MAF).

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of proficiency	5	Completes required paperwork in a timely manner without errors or supervision; demonstrates exceptional knowledge of the Work Unit Code Manual.
Frequently exceeds acceptable level of proficiency	4	Completes required paperwork in a timely manner with only minor errors and minimal supervision; demonstrates a good working knowledge of the Work Unit Code Manual.
Meets acceptable level of proficiency	3	Usually completes required paperwork in a timely manner with few errors; requires some supervision obtaining proper codes from the Work Unit Code Manual.
Occasionally meets acceptable level of proficiency	2	Is often late in completing required paperwork; forms and tags contain numerous errors; possesses only a limited knowledge of the Work Unit Code Manual.
Never meets acceptable level of proficiency	1	Requires direct supervision when completing required paperwork; entries on forms and tags require constant correction by supervisor; is unable to use the Work Unit Code Manual.

Dimension 2 (D2): Remove/Replace Engine Components

This refers to the entire procedure of removing/replacing any engine component. Example: Removing/replacing complex system components such as fuel control or CSD; removing/replacing simple system components such as tachometer generator.

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of proficiency	5	Removes/replaces complex system components without supervision; is able to complete all remove/replace tasks in less than the required time; demonstrates an exceptional understanding and knowledge of technical publications (Pubs).
Frequently exceeds acceptable level of proficiency	4	Removes/replaces complex system components with some supervision; completes all remove/replace tasks within required time; requires minimal supervision in use of Pubs only on certain tasks.
Meets acceptable level of proficiency	3	Removes/replaces complex system components with some supervision; removes/replaces of simple system components without supervision; usually completes tasks within required time; locates appropriate Pub and usually uses it without supervision.
Occasionally meets acceptable level of proficiency	2	Removes/replaces simple system components with some supervision; requires substantial supervision when removing/replacing complex system components; usually takes longer than required time to complete tasks; able to locate appropriate Pub but must have supervision in interpretation and use.
Never meets acceptable level of proficiency	1	Fails to remove/replace simple system components even with constant supervision; often unable to determine appropriate Pub for task; unable to interpret Pub without direct supervision.

Dimension 3 (D3): Inspect Engine

This refers to inspection of engine and engine components to ensure that equipment is safe and operable. Example: Inspecting engine plumbing.

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of proficiency	5	Quickly and easily identifies out of limits damage without supervision; inspects all external components and plumbing without supervision; able to analyze and understand causes of failures/malfunctions; demonstrates an exceptional understanding and knowledge of the relevant Pubs.
Frequently exceeds acceptable level of proficiency	4	Recognizes most out of limits damage with minimal supervision; completes inspection tasks quickly and accurately; inspects all external components and plumbing with minimal supervision; understands causes of most failures/malfunctions; requires minimal supervision in use of Pub only on certain major or complicated inspection tasks.
Meets acceptable level of proficiency	3	Recognizes most out of limits damage with some supervision; usually completes of inspection tasks within a reasonable amount of time; requires some supervision when inspecting external components and plumbing to ensure accuracy; understands causes of simple malfunctions but may require supervision to understand causes of more complicated failures; locates appropriate Pub and usually uses it without supervision.
Occasionally meets acceptable level of proficiency	2	Requires a substantial amount of time and supervision to recognize out of limits damage; has a limited understanding of causes of most failures/malfunctions; able to locate appropriate Pub but must have supervision in interpretation and use.
Never meets acceptable level of proficiency	1	Requires constant supervision to recognize out of limits damage; is unable to understand causes of even the simplest malfunctions; requires more time than other first termers to do simple inspection tasks; unable to distinguish between Pubs to find appropriate one for task; unable to interpret Pubs without constant supervision.

Dimension 4 (D4): Quality Control

This refers to inspection of aircraft engines, engine components, and related equipment prior to Quality Assurance (QA) for the purpose of maintaining operational standards. Example: Performing visual inspections of engines.

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of proficiency	5	The person accurately inspects engines or associated equipment for security/serviceability without supervision and in accordance with Pub; consistently provides an outstanding overall inspection; often has a zero defect product; always makes a thorough inspection for FOD.
Frequently exceeds acceptable level of proficiency	4	The person inspects engines or associated equipment for security/serviceability with minimal supervision; provides an excellent overall inspection; locates all major and most minor discrepancies; always makes a thorough inspection for FOD.
Meets acceptable level of proficiency	3	The person requires some supervision to inspect engines or associated equipment for security/serviceability; finds most major discrepancies without supervision and may overlook some minor discrepancies; provides a satisfactory inspection of engine; usually inspects and ensures there is no FOD matter in the area.
Occasionally meets acceptable level of proficiency	2	The person will occasionally check the accuracy of his work after completion; is careless in inspecting for FOD; finds most major discrepancies and misses numerous minor discrepancies; provides a marginal inspection of engine.
Never meets acceptable level of proficiency	1	The person rarely checks the accuracy of his work after completion; does not consider basic quality control duties, such as inspection for FOD, to be part of his job; requires constant supervision to find almost all discrepancies, whether major or minor.

Dimension 5 (D5): IMA Maintenance

This refers to specialized maintenance tasks performed at the IMA.  
Example: Assembling engine.

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of proficiency	5	Disassembles/assembles engine without supervision; removes/replaces combustion section without supervision.
Frequently exceeds acceptable level of proficiency	4	Has no difficulty disassembling engine, requires minimal supervision during assembly stage; requires minimal supervision removing/replacing combustion section and using critical measurements.
Meets acceptable level of proficiency	3	Requires substantial supervision assembling engine, but has no difficulty with disassembly tasks; requires some supervision when removing/replacing combustion section and using critical measurements.
Occasionally meets acceptable level of proficiency	2	Requires constant supervision at all stages of assembly and substantial supervision on disassembly tasks; requires substantial supervision when removing/replacing combustion section and using critical measurements.
Never meets acceptable level of proficiency	1	Requires constant supervision on almost all phases of assembly/disassembly; requires constant supervision in performing most specialized maintenance tasks.

#### Dimension 6 (D6): Preparation for Storage or Shipping

This refers to procedures involved in preparing engine, engine components, or containers for storage or shipping. Example: Removing Quick Engine Change (QEC) kits for storage.

<u>Levels</u>	Circle the <u>Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of proficiency	5	Removes Quick Engine Change (QEC) kits for repair or storage and purges and prepares engine for storage/shipping without supervision; completes all related tasks in minimal amount of time and without supervision.
Frequently exceeds acceptable level of proficiency	4	Purges and prepares engine for storage/shipping with minimal supervision; performs most storage/shipping tasks without supervision and in a minimal amount of time.
Meets acceptable level of proficiency	3	Requires some supervision when removing QEC kit for repair or storage and when purging and preparing engine for storage/shipping; marks wrapped engine or engine containers accurately and without supervision; performs most related tasks with minimal supervision and in an acceptable amount of time.
Occasionally meets acceptable level of proficiency	2	May fail to remove some QEC kit items; may fail to properly purge all systems; requires substantial supervision when marking wrapped engine or engine containers; performs most related tasks with some supervision.
Never meets acceptable level of proficiency	1	Requires constant supervision on all storage/shipping tasks; when instructed to remove QEC kit, has trouble determining which are QEC kit items and may remove wrong items; requires constant supervision to accurately mark wrapped engine or engine containers.

## TASK RATING FORM

The purpose of this rating form is to rate an individual's level of proficiency at performing a number of Jet Engine Mechanic tasks. Proficiency refers to how skilled someone is at performing various tasks on the job. Remember, we are concerned with the level of ability to perform these tasks, excluding interpersonal factors (willingness to work, cooperating with others) or situational factors (lack of tools or parts, weather conditions).

As you rate each task, ask yourself, "At what level of proficiency could the individual perform this particular task?" Circle the number on the answer sheet that corresponds to the appropriate rating for each task. Please provide a rating for each task listed on the following pages, even if the individual does not frequently perform the task.

The five levels that will be used on this rating form are listed below:

- 5 -- Always exceeds acceptable level of proficiency
- 4 -- Frequently exceeds acceptable level of proficiency
- 3 -- Meets acceptable level of proficiency
- 2 -- Occasionally meets acceptable level of proficiency
- 1 -- Never meets acceptable level of proficiency

PLEASE RATE ALL TASKS

J-79 IMA TASK RATINGS (T1-T26)

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5 -- Always exceeds acceptable level of proficiency  
4 -- Frequently exceeds acceptable level of proficiency  
3 -- Meets acceptable level of proficiency  
2 -- Occasionally meets acceptable level of proficiency  
1 -- Never meets acceptable level of proficiency

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T1. \_\_\_\_\_ Completes Visual Identification Display System/ Maintenance Action Forms (VIDS/MAF).

T2. \_\_\_\_\_ Inspects engine plumbing.

T3. \_\_\_\_\_ Installs lockwire.

T4. \_\_\_\_\_ Inspects 3000 series trailers for serviceability.

T5. \_\_\_\_\_ Inspects area for foreign object damage (FOD) matter.

T6. \_\_\_\_\_ Inspects first stage compressors.

T7. \_\_\_\_\_ Places protective covers on engines.

T8. \_\_\_\_\_ Transports engines to work sections.

T9. \_\_\_\_\_ Installs tachometer generators.

T10. \_\_\_\_\_ Inspects engine or accessory splines.

T11. \_\_\_\_\_ Installs J-79 engine afterburner secondary flaps.

T12. \_\_\_\_\_ Installs J-79 engine forward top anti-icing ducts.

T13. \_\_\_\_\_ Installs J-79 engine exhaust gas temperature thermocouple harnesses.

T14. \_\_\_\_\_ Installs J-79 engine ignition exciter boxes.

T15. \_\_\_\_\_ Rigs J-79 engine afterburner components.

T16. \_\_\_\_\_ Rigs J-79 engine inlet guide vane systems.

T17. \_\_\_\_\_ Installs J-79 engine pressurizing and drain (P&D) valves.

J-79 IMA TASK RATINGS CONTINUED

- T18. \_\_\_\_\_ Installs J-79 engine afterburner fuel pressurizing valves.
- T19. \_\_\_\_\_ Installs J-79 engine number 3 bearings.
- T20. \_\_\_\_\_ Installs J-79 engine forward and rear number 3 oil seals.
- T21. \_\_\_\_\_ Removes J-79 engine turbine rotor packages.
- T22. \_\_\_\_\_ Installs J-79 engine bleed air system component (manifold collector bowl)
- T23. \_\_\_\_\_ Removes J-79 engine front gear boxes.
- T24. \_\_\_\_\_ Inspects the first stage of the J-79 turbine nozzles.
- T25. \_\_\_\_\_ Wraps a J-79 engine for shipment by air.
- T26. \_\_\_\_\_ Inspects a J-79 engine bearings.

## NAVY/MARINE CORPS-WIDE RATING FORM

The purpose of this rating form is to allow you to evaluate an individual's performance on factors important to all sailors or marines regardless of rating or MOS.

Listed below are the factors on which you should rate the individual's performance.

1. Technical Knowledge/Skill
2. Initiative/Effort
3. Knowledge of and Adherence to Regulations/Orders
4. Integrity
5. Leadership
6. Military Appearance
7. Self Development
8. Self Control

On the pages that follow, read the definition of each performance factor carefully. Use the behavioral examples as indicators of behavior typically displayed at the various levels. Circle the number on the answer sheet that corresponds to the level best describing the individual's performance in each area.

The five levels that will be used on this rating form are listed below:

- 5 -- Always exceeds acceptable level of proficiency
- 4 -- Frequently exceeds acceptable level of proficiency
- 3 -- Meets acceptable level of proficiency
- 2 -- Occasionally meets acceptable level of proficiency
- 1 -- Never meets acceptable level of proficiency

PLEASE RATE ALL PERFORMANCE FACTORS

Performance Factor 1 (PF1): Technical Knowledge/Skill

Displaying job knowledge and skill.

---

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of performance	5	Displays exceptional knowledge/skill to consistently complete assignments and tasks properly; requires little or no supervision; completes tasks in minimum time.
Frequently exceeds acceptable level of performance	4	Displays considerable knowledge and skill to complete assignments and tasks properly; performs effectively with little supervision; completes tasks quicker than average first-term sailors or marines.
Meets acceptable level of performance	3	Displays good knowledge/skill in most aspects of the job; able to properly complete the majority of tasks; requires supervision only on difficult tasks and assignments; completes work in the same time as other first-term sailors or marines.
Occasionally meets acceptable level of performance	2	Occasionally displays adequate knowledge about how to complete tasks and assignments; quality of work is inconsistent; requires direct supervision on most tasks to ensure quality and accuracy; usually completes tasks within required time.
Never meets acceptable level of performance	1	Does not display knowledge and skill necessary to properly complete tasks and assignments; unable to perform without direct supervision; often fails to complete assignments; performs slower than other first-term sailors or marines.

Performance Factor 2 (PF2): Initiative/Effort

Showing initiative and extra effort on job/mission/assignment.

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of performance	5	Always volunteers when opportunities arise; demonstrates initiative promptly and effectively; enthusiastically works extra hours to ensure completion of project; works to completion when situation becomes difficult.
Frequently exceeds acceptable level of performance	4	Frequently volunteers and demonstrates initiative when opportunities arise; usually performs with enthusiasm despite difficulty; willing to work extra hours to complete assignment.
Meets acceptable level of performance	3	Volunteers for some assignments; willing to put in extra effort and time on priority tasks; does not give up easily when faced with obstacles or difficulty.
Occasionally meets acceptable level of performance	2	Seldom volunteers or displays initiative; may avoid difficult assignments; has a tendency to stop working when tired or bored; will work extra hours only when required.
Never meets acceptable level of performance	1	Displays no initiative and never volunteers for assignments; reluctant to work extra hours; may become hostile when asked to put forth extra effort; performs ineffectively due to lack of effort; gives up easily when faced with a difficult task.

**Performance Factor 3 (PF3): Knowledge of and Adherence to  
Regulations/Orders**

Displaying knowledge of and adhering to Naval/Marine Corps unit rules, regulations, and orders and displaying respect for authority.

---

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of performance	5	Demonstrates an exceptional knowledge and understanding of Naval/Marine Corps unit rules and regulations. Follows the spirit as well as the letter of rules and regulations; obeys orders quickly; always reports promptly for duty, formations, appointments, etc.; remains alert while on duty even when it is inconvenient to do so.
Frequently exceeds acceptable level of performance	4	Demonstrates an excellent knowledge and understanding of Naval/Marine Corps unit rules and regulations; follows rules and regulations without fail; always obeys orders; can be counted on to be at appointed area on time; displays appropriate respect for authority.
Meets acceptable level of performance	3	Follows Naval/Marine Corps unit rules and regulations almost without fail; is knowledgeable of those rules and regulations that concern safety or security; rarely late for duty or formation; never leaves assigned duty section; always obeys orders.
Occasionally meets acceptable level of performance	2	Occasionally may fail to follow Naval/Marine Corps rules or regulations; occasionally late for duty formations; usually obeys orders but may question them.
Never meets acceptable level of performance	1	Ignores or fails to follow Naval/Marine Corps rules, regulations, or orders; often displays lack of respect toward superiors; may leave assigned work area.

Performance Factor 4 (PF4): Integrity

Displaying honesty and integrity in job-related matters.

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of performance	5	Can be trusted to be honest and truthful in all matters even when own self interests might be jeopardized; takes extra steps to protect the security of military equipment/supplies; voluntarily reports thefts, misconduct, and any other violations of military order and discipline.
Frequently exceeds acceptable level of performance	4	Admits job-related mistakes and provides information necessary for administrative decisions; voluntarily reports thefts, misconduct, and other incidents of military violation; never misuses military equipment/supplies.
Meets acceptable level of performance	3	Admits job-related mistakes and provides information necessary for administrative decisions; reports obvious misconduct and military violations; unlikely to misuse military equipment/supplies; returns found property to rightful owner.
Occasionally meets acceptable level of performance	2	Seldom admits job-related mistakes and may make excuses to avoid responsibility for such mistakes; will provide information regarding thefts, misconduct, and other military violations if asked by supervisor but will not volunteer such information; returns found property to rightful owner.
Never meets acceptable level of performance	1	Denies responsibility for job-related mistakes and puts the blame on someone else; assists in covering up or is otherwise directly involved in incidents of theft, misconduct, and other military violations; dishonest and deceitful in dealings with supervisor and peers; falsifies military forms, vouchers, or records to further personal gain.

### Performance Factor 5 (PF5): Leadership

Performing in a leader role, as required, and providing support for fellow unit members.

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of performance	5	Performs very effectively when placed in leadership position; takes charge when necessary and fills in effectively for supervisor; is sought out as a resource person and serves as a role model; always looks out for and supports fellow unit members when they are in trouble, need encouragement, performing poorly, etc.
Frequently exceeds acceptable level of performance	4	Performs effectively in structured leadership situations; usually looks out for and supports fellow unit members when they are in trouble, need encouragement, performing poorly, etc.
Meets acceptable level of performance	3	Performs effectively in structured leadership situations and less well in difficult situations requiring hard judgements and quick decisions; is supportive of fellow unit members at important times.
Occasionally meets acceptable level of performance	2	Seldom effective in leadership positions; will not go out of way to provide support, encouragement, etc., to fellow unit members; reluctant to help others complete their assignments.
Never meets acceptable level of performance	1	Unable to perform in leadership positions; unable to step in and take charge even when necessary; unwilling to provide support, encouragement, etc., to fellow unit members; shows impatience and insensitivity to other unit personnel.

Performance Factor 6 (PF6): Military Appearance

Maintaining proper military appearance and meeting military standards for physical fitness.

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of performance	5	Always properly and neatly dressed, even beyond the requirements of military standards; consistently presents an impressive appearance; maintains excellent personal hygiene and cleanliness even under dirty or difficult conditions; is in excellent physical condition and substantially exceeds Naval/Marine Corps standards for physical stamina and strength.
Frequently exceeds acceptable level of performance	4	Maintains a crisp, neat military appearance; maintains personal hygiene and cleanliness; is in excellent physical condition and often exceeds Naval/Marine Corps standards for physical stamina and strength.
Meets acceptable level of performance	3	Dresses neatly and properly during duty, and at inspections; pays sufficient attention to personal cleanliness and hygiene to meet military standards; is in good physical condition and meets Naval/Marine Corps standards for weight, physical stamina, and strength.
Occasionally meets acceptable level of performance	2	Usually dresses properly for inspections but often fails to present a proper military appearance on a daily basis; is in fair physical condition and may fail Naval/Marine Corps standards for weight, physical stamina, or strength.
Never meets acceptable level of performance	1	Consistently dresses sloppily and/or improperly for duty and at inspections; fails to attend to personal cleanliness and hygiene; is in poor physical condition and fails Naval/Marine Corps standards for weight, physical stamina, and strength.

Performance Factor 7 (PF7): Self Development

Developing job-related skills.

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<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of performance	5	Devotes a substantial amount of off-duty time to studying and practicing to become as proficient as possible in important job-related skills; enthusiastically takes on additional job duties and responsibilities to prepare for promotion; actively seeks out opportunities for self-improvement; completes Naval/Marine Corps course requirements in less than prescribed time, and consistently obtains above average scores.
Frequently exceeds acceptable level of performance	4	Studies and practices during off-duty hours to improve job-related skills; takes advantage of most opportunities presented to take on additional responsibility that would help prepare for promotion; completes Naval/Marine Corps course requirements in less than required time.
Meets acceptable level of performance	3	Is aware of personal weakness in job-related skills and participates in training programs to improve these areas; sometimes reluctant to take on extra responsibility that would help prepare for promotion; completes Naval/Marine Corps course requirements within prescribed time.
Occasionally meets acceptable level of performance	2	Participates half-heartedly without seriously applied effort in training programs; studies manuals or practices to improve job skills only when ordered to do so; avoids additional responsibility that might help prepare for promotion; may require retesting to fulfill Naval/Marine Corps course requirements.
Never meets acceptable level of performance	1	Does not participate in training programs; makes no effort to improve below standard job skills; fails Naval/Marine Corps course requirements due to lack of interest, effort, or attention.

Performance Factor 8 (PF8): Self Control

Controlling personal behavior.

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of performance	5	Meets all financial obligations; consistently displays exceptional emotional maturity; does not allow personal matters to interfere with professional duties.
Frequently exceeds acceptable level of performance	4	Meets all financial obligations; usually displays appropriate emotional behavior and control; does not allow personal problems to influence job performance.
Meets acceptable level of performance	3	Meets mosts financial and legal obligations; related problems are minor and infrequent and rarely interfere with job performance; usually displays emotional maturity.
Occasionally meets acceptable level of performance	2	Frequently has financial problems due to lack of self discipline; attempts to control temper and emotional behavior but frequently fails to do so; allows personal matters to effect job performance.
Never meets acceptable level of performance	1	Does not attempt to control temper or otherwise displays inappropriate behavior; consistently requires time off from duty to attend to financial, legal, or other personal problems.

**APPENDIX D**

**RATING FORM ANSWER SHEETS AND QUESTIONNAIRE  
FOR  
NAVY/MARINE CORPS J-79 JET ENGINE MECHANICS  
AT THE  
INTERMEDIATE MAINTENANCE ACTIVITY (IMA)**

JET ENGINE MECHANIC RATING FORM ANSWER SHEET IMA EXAMINEES

Your Name \_\_\_\_\_ SSN \_\_\_\_\_

1. Who are you making these ratings for? (Circle One)

(1) Self (2) Peer (3) Subordinate

SKIP QUESTIONS 2-5 IF YOU ARE RATING YOURSELF.

2. Name of Person You are Rating if other than yourself  
Name \_\_\_\_\_ SSN \_\_\_\_\_

3. How many months have you known the individual being evaluated? \_\_\_\_\_

4. How often do you observe the individual you are evaluating in the performance of his/her job? (Circle One)

(1) NEVER (2) RARELY (3) SOMETIMES (4) OFTEN (5) VERY OFTEN

5. How often do you interact outside of the work setting with the individual you are evaluating? (Circle One)

(1) NEVER (2) RARELY (3) SOMETIMES (4) OFTEN (5) VERY OFTEN

RATINGS

GLOBAL RATINGS

TP. 5 4 3 2 1

IP. 5 4 3 2 1

DIMENSIONAL RATINGS

D1. 5 4 3 2 1

D2. 5 4 3 2 1

D3. 5 4 3 2 1

D4. 5 4 3 2 1

D5. 5 4 3 2 1

D6. 5 4 3 2 1

TURN THIS ANSWER SHEET OVER TO ENTER YOUR TASK RATINGS AND YOUR NAVY/MARINE CORPS WIDE RATINGS.

IMA PERSONNEL SHOULD USE T1 THROUGH T26 TO RECORD THE TASK RATINGS.  
OMA PERSONNEL SHOULD USE T1 THROUGH T31.

TASK RATINGS

T1.	5	4	3	2	1
T2.	5	4	3	2	1
T3.	5	4	3	2	1
T4.	5	4	3	2	1
T5.	5	4	3	2	1
T6.	5	4	3	2	1
T7.	5	4	3	2	1
T8.	5	4	3	2	1
T9.	5	4	3	2	1
T10.	5	4	3	2	1
T11.	5	4	3	2	1
T12.	5	4	3	2	1
T13.	5	4	3	2	1
T14.	5	4	3	2	1
T15.	5	4	3	2	1
T16.	5	4	3	2	1

TASK RATINGS CONTINUED

T17.	5	4	3	2	1
T18.	5	4	3	2	1
T19.	5	4	3	2	1
T20.	5	4	3	2	1
T21.	5	4	3	2	1
T22.	5	4	3	2	1
T23.	5	4	3	2	1
T24.	5	4	3	2	1
T25.	5	4	3	2	1
T26.	5	4	3	2	1
T27.	- T31 for OMA Ratings				
T27.	5	4	3	2	1
T28.	5	4	3	2	1
T29.	5	4	3	2	1
T30.	5	4	3	2	1
T31.	5	4	3	2	1

NAVY/MARINE CORPS WIDE RATINGS

PF1.	5	4	3	2	1
PF2.	5	4	3	2	1
PF3.	5	4	3	2	1
PF4.	5	4	3	2	1
PF5.	5	4	3	2	1
PF6.	5	4	3	2	1
PF7.	5	4	3	2	1
PF8.	5	4	3	2	1

## RATING FORMS QUESTIONNAIRE

YOUR NAME \_\_\_\_\_ SSN \_\_\_\_\_

We are interested in your beliefs about the usefulness of the rating forms you have just completed. Using the scale provided below, please rate each form as directed in the question.

- 1 - Not at all
- 2 - To a small extent
- 3 - To a moderate extent
- 4 - To a great extent
- 5 - To a very great extent

1. How motivated were you to accomplish the rating form to the best of your ability? \_\_\_\_\_
2. Accuracy of a rating form means: How well you can use the form to correctly rate a person's job proficiency/ performance. That is, if someone were to look at the ratings on the form, would they be able to get a true picture of the performance level of the person being rated. How accurately were you able to rate yourself using the:
  - a. \_\_\_\_\_ Global Rating Form
  - b. \_\_\_\_\_ Dimensional Rating Form
  - c. \_\_\_\_\_ Task Rating Form
  - d. \_\_\_\_\_ Navy/Marine Corps-Wide Rating Form
3. Discrimination of a rating form means: Can you tell the difference between good and poor performers by looking at the ratings they were given? How well would you be able to discriminate between good and poor performers using the:
  - a. \_\_\_\_\_ Global Rating Form
  - b. \_\_\_\_\_ Dimensional Rating Form
  - c. \_\_\_\_\_ Task Rating Form
  - d. \_\_\_\_\_ Navy/Marine Corps-Wide Rating Form
4. Acceptability of a rating form means: How easy is it to use the form to rate someone? That is, how clear are the instructions and how good do you think the ratings are? How acceptable are the different rating forms?
  - a. \_\_\_\_\_ Global Rating Form
  - b. \_\_\_\_\_ Dimensional Rating Form
  - c. \_\_\_\_\_ Task Rating Form
  - d. \_\_\_\_\_ Navy/Marine Corps-Wide Rating Form

Next, we would like you to compare the rating forms to each other. For each category (Accuracy, Discrimination, Acceptability), please rank-order the four rating forms using a "1" for the best, a "2" for the next best, and so on. For example, if you believe that the Navy/Marine Corps-Wide rating form provides the most accurate ratings of a person's performance, you should place a "1" in the space beside the "Navy/Marine Corps-Wide Rating Form". Similarly, if you believe that the Task Rating Form is next to the worst at providing accurate ratings, you should place a "3" in the space next to "Task Rating Form."

5. Please be sure to rank each rating form in each category and to use the ranking number (1,2,3,4) only once in each category.

(1 = BEST; 2 = NEXT BEST; 3 = NEXT TO WORST; 4 = WORST)

a. Accuracy

- Global Rating Form
- Dimensional Rating Form
- Task Rating Form
- Navy/Marine Corps-Wide Rating Form

b. Discrimination

- Global Rating Form
- Dimensional Rating Form
- Task Rating Form
- Navy/Marine Corps-Wide Rating Form

c. Acceptability

- Global Rating Form
- Dimensional Rating Form
- Task Rating Form
- Navy/Marine Corps-Wide Rating Form

## GENERAL BACKGROUND

YOUR NAME \_\_\_\_\_ SSN \_\_\_\_\_

The following questions pertain to your work experience, your work unit, and your feelings about your job. This information will be used for research purposes only. Please check/fill in each blank as accurately as possible.

1. Present Rank/Rate:  E-1  E-5  
 E-2  E-6  
 E-3  E-7  
 E-4  E-8

2. Months in present unit: \_\_\_\_\_

3. Months you have been a Jet Engine Mechanic on the J-79 engine model system:  
: \_\_\_\_\_

4. Area where most of your work is done:  IMA  OMA

5. Months in IMA: \_\_\_\_\_; months in OMA: \_\_\_\_\_

6. Please list any additional Jet Engine Mechanic experience below.

Engine Type	Amount of Experience (months)
_____	_____
_____	_____
_____	_____

7. In general, how is morale in your unit? (Check one)

Extremely high  
 Fairly high  
 Average  
 Fairly low  
 Extremely low

TURN SHEET OVER FOR ADDITIONAL QUESTIONS

Use the scale provided below to respond to statements 8-22.

- 5 - Strongly Agree
- 4 - Agree
- 3 - Neither Agree nor Disagree
- 2 - Disagree
- 1 - Strongly Disagree

8.  The technical manuals and other written materials that I use in my job are clear and understandable.

9.  The technical manuals and other written materials that I use in my job are available when I need them.

10.  The tools and equipment that I use in my job are available when I need them.

11.  I am able to use my skills and talents in my job.

12.  I get a sense of accomplishment from my job.

13.  I feel that my supervisor is concerned about my well-being.

14.  I feel that my supervisor gives me the support that I need to do my job.

15.  I feel that my job is interesting.

16.  I get a sense of pride from being in the Navy or Marine Corps.

17.  I feel that my job is important to the overall mission of the Navy or Marine Corps.

18.  I am satisfied with my job.

19.  I feel a strong sense of responsibility to my unit.

20.  I perform my duties to the best of my abilities.

21.  My technical school training provided me with the basic skills and knowledge needed to do my job.

22.  My on-the-job training provides me with the additional skills and knowledge needed to do my job.

Additional Comments (If referring to a specific question, please give the question number)

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J-79 IMA EXAMINEE TASK EXPERIENCE RATINGS

COMPLETE THIS TASK EXPERIENCE RATING QUESTIONNAIRE ONLY IF YOU COMPLETED THE RATING FORMS ON YOURSELF. IF YOU ARE A SUPERVISOR OR A PEER DO NOT COMPLETE THIS QUESTIONNAIRE.

NAME \_\_\_\_\_ SSN \_\_\_\_\_

Read each task statement and think about the amount of relevant on-the-job experience you've had on that task, excluding technical school training. Using the scale provided, write the number corresponding to your response in the space beside the task.

1. No Experience
2. A Slight Amount
3. A Small Amount
4. A Moderate Amount
5. A Considerable Amount
6. A Great Amount
7. A Very Great Amount

1. \_\_\_\_\_ Completes Visual Identification Display System/ Maintenance Action Forms (VIDS/MAF).
2. \_\_\_\_\_ Inspects engine plumbing.
3. \_\_\_\_\_ Installs lockwire.
4. \_\_\_\_\_ Inspects 3000 series trailers for serviceability.
5. \_\_\_\_\_ Inspects area for foreign object damage (FOD) matter.
6. \_\_\_\_\_ Inspects first stage compressors.
7. \_\_\_\_\_ Places protective covers on engines.
8. \_\_\_\_\_ Transports engines to work sections.
9. \_\_\_\_\_ Installs tachometer generators.
10. \_\_\_\_\_ Inspects engine or accessory splines.
11. \_\_\_\_\_ Installs J-79 engine afterburner secondary flaps.
12. \_\_\_\_\_ Installs J-79 engine forward top anti-icing ducts.
13. \_\_\_\_\_ Installs J-79 engine exhaust gas temperature thermocouple harness.
14. \_\_\_\_\_ Installs J-79 engine ignition exciter boxes.
15. \_\_\_\_\_ Rigs J-79 engine afterburner components.

## J-79 IMA TASK EXPERIENCE RATINGS

Read each task statement and think about the amount of relevant on-the-job experience you've had on that task, excluding technical school training. Using the scale provided, write the number corresponding to your response in the space beside the task.

1. No Experience
2. A Slight Amount
3. A Small Amount
4. A Moderate Amount
5. A Considerable Amount
6. A Great Amount
7. A Very Great Amount

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- 16. \_\_\_\_\_ Rigs J-79 engine inlet guide vane systems.
- 17. \_\_\_\_\_ Installs J-79 engine pressurizing and drain (P&D) valves.
- 18. \_\_\_\_\_ Installs J-79 engine afterburner fuel pressurizing valves.
- 19. \_\_\_\_\_ Installs J-79 engine number 3 bearings.
- 20. \_\_\_\_\_ Installs J-79 engine forward and rear number 3 oil seals.
- 21. \_\_\_\_\_ Removes J-79 engine compressor drive turbine rotor packages.
- 22. \_\_\_\_\_ Installs J-79 engine bleed air system manifold.
- 23. \_\_\_\_\_ Removes J-79 engine front gear boxes.
- 24. \_\_\_\_\_ Inspects the first stage of the J-79 turbine nozzles.
- 25. \_\_\_\_\_ Wraps a J-79 engine for shipment by air.
- 26. \_\_\_\_\_ Inspects J-79 engine bearings.

**APPENDIX E**  
**RATING FORM BOOKLET**  
**FOR**  
**NAVY/MARINE CORPS J-79 JET ENGINE MECHANICS**  
**AT THE**  
**ORGANIZATIONAL MAINTENANCE ACTIVITY (OMA)**

## GENERAL INSTRUCTIONS

You are being asked to participate in a research project aimed at determining how useful different types of rating forms are for evaluating a first-term jet engine mechanic's job performance. Throughout the project, first-term Jet Engine Mechanics will be asked to complete these rating forms on themselves and some of their co-workers. In addition, NCOs who are direct supervisors of the Jet Engine Mechanics will be asked to provide evaluations.

The information provided from the rating forms will be used solely for research purposes. It will not be seen by other jet engine mechanics or anyone else connected with your unit. In fact, we are not concerned with the ratings an individual receives or with how an individual rates others. The purpose of this project is to answer the question, "Which rating forms are most useful for making accurate evaluations?" These ratings will in no way be associated with you or anyone else involved, so please be totally honest in your evaluations.

Information will be collected from many Jet Engine Mechanics at a number of bases across the country. These data will help us decide which rating forms improve the chances of getting accurate evaluations. In addition, information will be gathered about recruit qualities that lead to success in the Navy and Marine Corps. Because subsequent decisions regarding the quality of the various rating forms will be based on information provided by participants such as yourself, it is essential that you take whatever time is necessary to give the most accurate ratings possible.

This rating form packet contains four (4) different rating forms. Each rating form was developed through extensive contact with Jet Engine Mechanics. These job experts both developed and reviewed these forms and therefore, we believe the content of the forms accurately reflects the job of a Jet Engine Mechanic. These four rating forms will include a 2-item global rating form, a set of Navy/ Marine Corps wide ratings, a more specific dimensional rating form, and a detailed task-specific form.

All ratings are made on a scale with five points (5-high, 1-low). A rating of 5 indicates that you always exceed the acceptable level of proficiency and a rating of 1 that you never meet the acceptable level of proficiency. Specific instructions for completing each rating form are included as part of the form.

Use the accompanying answer sheet to record your response to the rating forms, then complete the self-explanatory questionnaires attached to the answer sheet.

Thank you very much for giving this your careful attention this your careful attention.

STOP

WAIT FOR FURTHER INSTRUCTIONS

## GLOBAL RATING FORM

The purpose of this rating form is to allow you to evaluate an individual's overall level of technical and interpersonal proficiency. A five-point rating scale will be provided on each of the next two pages.

Technical proficiency refers to how skilled someone is at performing various tasks on the job, ignoring interpersonal factors (willingness to work, cooperation with others) or situational factors (lack of tools or parts, weather conditions).

Interpersonal proficiency refers to how well someone works with various levels of supervision and how cooperative the individual is on a task requiring team effort.

Use the behavioral examples as illustrations of the quality of work performed at that level. On the answer sheet, circle the number that corresponds to the individual's overall level of job proficiency.

The five levels that will be used on this rating form are listed below:

- 5 -- Always exceeds acceptable level of proficiency
- 4 -- Frequently exceeds acceptable level of proficiency
- 3 -- Meets acceptable level of proficiency
- 2 -- Occasionally meets acceptable level of proficiency
- 1 -- Never meets acceptable level of proficiency

PLEASE RATE BOTH ITEMS

## TECHNICAL PROFICIENCY (TP)

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of proficiency	5	Completes all sections of required tasks without supervision and with few minor errors; is able to remove or replace minor/major components with no supervision and with few or no errors; always brings the correct materials to worksite.
Frequently exceeds acceptable level of proficiency	4	Completes all sections of required tasks with little or no supervision and few errors; is able to remove or replace minor/major components with no supervision and with few or no errors; always brings the correct materials to worksite.
Meets acceptable level of proficiency	3	Completes all sections of tasks with minimal supervision and an acceptable number of errors; is able to remove or replace minor components with minimal supervision and an acceptable number of errors; usually brings the correct materials to worksite.
Occasionally meets acceptable level proficiency	2	Requires direct supervision or assistance on certain tasks in order to avoid of numerous errors; is able to remove or replace minor components with some supervision or assistance; occasionally brings correct materials to worksite.
Never meets acceptable level of proficiency	1	Is unable to complete tasks without direct supervision; is unable to remove or replace minor components without direct supervision or assistance; and never brings correct materials to worksite.

## INTERPERSONAL PROFICIENCY (IP)

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of proficiency	5	Always works well with all levels of supervision and coworkers; works effectively on tasks requiring teamwork or cooperation; willing to assist coworkers in completing a high priority task without being asked by the supervisor.
Frequently exceeds acceptable level of proficiency	4	Frequently works well with all levels of supervision and coworkers; works effectively on tasks requiring teamwork or cooperation; often willing to assist coworkers in completing a high priority task without being asked by the supervisor.
Meets acceptable level of proficiency	3	Cooperates with most supervisors and coworkers; usually works effectively on tasks requiring teamwork or cooperation; will assist coworkers in completing a high priority task only if asked by the supervisor.
Occasionally meets acceptable level of proficiency	2	Cooperates with only a select group of supervisors and coworkers; rarely works effectively on tasks requiring teamwork or cooperation; reluctantly assists coworkers in completing a high priority task if asked by the supervisor.
Never meets acceptable level of proficiency	1	Is uncooperative and ineffective when working on a task requiring teamwork or cooperation; unreceptive to guidance by supervisors or coworkers; doesn't care about functioning as a unit or crew.

## DIMENSIONAL RATING FORM

The purpose of this rating form is to evaluate an individual's level of proficiency on groups of tasks, or dimensions. Remember, proficiency refers to how skilled someone is at performing various tasks on the job, ignoring interpersonal factors (willingness to work, cooperating with others) or situational factors (lack of tools or parts, weather conditions).

Listed below are the dimensions on which you will rate the individual.

1. Completion of Forms
2. Remove/Replace Engine Components
3. Inspect Engine
4. Quality Control
5. OMA Maintenance
6. Troubleshoot

On the pages that follow, read the definition of each dimension carefully. Use the behavioral examples as indicators of the quality of work performed at the various levels. Circle the number on the answer sheet that corresponds to the individual's level of proficiency on each dimension.

The five levels that will be used on this rating form are listed below:

- 1 -- Always exceeds acceptable level of proficiency
- 2 -- Frequently exceeds acceptable level of proficiency
- 3 -- Meets acceptable level of proficiency
- 2 -- Occasionally meets acceptable level of proficiency
- 1 -- Never meets acceptable level of proficiency

PLEASE RATE ALL DIMENSIONS

Dimension 1 (D1): Completion of Forms

This refers to preparation and completion of required paperwork.  
Example: Visual Identification Display System/Maintenance Action Forms (VIDS/MAF).

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of proficiency	5	Completes required paperwork in a timely manner without errors or supervision; demonstrates exceptional knowledge of the Work Unit Code Manual.
Frequently exceeds acceptable level of proficiency	4	Completes required paperwork in a timely manner with only minor errors and minimal supervision; demonstrates a good working knowledge of the Work Unit Code Manual.
Meets acceptable level of proficiency	3	Usually completes required paperwork in a timely manner with few errors; requires some supervision obtaining proper codes from the Work Unit Code Manual.
Occasionally meets acceptable level of proficiency	2	Is often late in completing required paperwork; forms and tags contain numerous errors; possesses only a limited knowledge of the Work Unit Code Manual.
Never meets acceptable level of proficiency	1	Requires direct supervision when completing required paperwork; entries on forms and tags require constant correction by supervisor; is unable to use the Work Unit Code Manual.

## Dimension 2 (D2): Remove/Replace Engine Components

This refers to the entire procedure of removing/replacing any engine component. Example: Removing/replacing complex system components such as fuel control or CSD; removing/replacing simple system components such as tachometer generator.

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of proficiency	5	Removes/replaces complex system components without supervision; is able to complete all remove/replace tasks in less than the required time; demonstrates an exceptional understanding and knowledge of technical publications (Pubs).
Frequently exceeds acceptable level of proficiency	4	Removes/replaces complex system components with some supervision; completes all remove/replace tasks within required time; requires minimal supervision in use of Pubs only on certain tasks.
Meets acceptable level of proficiency	3	Removes/replaces complex system components with some supervision; removes/replaces of simple system components without supervision; usually completes tasks within required time; locates appropriate Pub and usually uses it without supervision.
Occasionally meets acceptable level of proficiency	2	Removes/replaces simple system components with some supervision; requires substantial supervision when removing/replacing complex system components; usually takes longer than required time to complete tasks; able to locate appropriate Pub but must have supervision in interpretation and use.
Never meets acceptable level of proficiency	1	Fails to remove/replace simple system components even with constant supervision; often unable to determine appropriate Pub for task; unable to interpret Pub without direct supervision.

### Dimension 3 (D3): Inspect Engine

This refers to inspection of engine and engine components to ensure that equipment is safe and operable. Example: Inspecting engine plumbing.

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of proficiency	5	Quickly and easily identifies out of limits damage without supervision; inspects all external components and plumbing without supervision; able to analyze and understand causes of failures/malfunctions; demonstrates an exceptional understanding and knowledge of the relevant Pubs.
Frequently exceeds acceptable level of proficiency	4	Recognizes most out of limits damage with minimal supervision; completes inspection tasks quickly and accurately; inspects all external components and plumbing with minimal supervision; understands causes of most failures/malfunctions; requires minimal supervision in use of Pub only on certain major or complicated inspection tasks.
Meets acceptable level of proficiency	3	Recognizes most out of limits damage with some supervision; usually completes inspection tasks within a reasonable amount of time; requires some supervision when inspecting external components and plumbing to ensure accuracy; understands causes of simple malfunctions but may require supervision to understand causes of more complicated failures; locates appropriate Pub and usually uses it without supervision.
Occasionally meets acceptable level of proficiency	2	Requires a substantial amount of time and supervision to recognize out of limits damage; has a limited understanding of causes of most failures/malfunctions; able to locate appropriate Pub but must have supervision in interpretation and use.
Never meets acceptable level of proficiency	1	Requires constant supervision to recognize out of limits damage; is unable to understand causes of even the simplest malfunctions; requires more time than other first termers to do simple inspection tasks; unable to distinguish between Pubs to find appropriate one for task; unable to interpret Pubs without constant supervision.

Dimension 4 (D4): Quality Control

This refers to inspection of aircraft engines, engine components, and related equipment prior to Quality Assurance (QA) for the purpose of maintaining operational standards. Example: Performing visual inspections of engines.

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of proficiency	5	The person accurately inspects engines or associated equipment for security/serviceability without supervision and in accordance with Pub; consistently provides an outstanding overall inspection; often has a zero defect product; always makes a thorough inspection for FOD.
Frequently exceeds acceptable level of proficiency	4	The person inspects engines or associated equipment for security/serviceability with minimal supervision; provides an excellent overall inspection; locates all major and most minor discrepancies; always makes a thorough inspection for FOD.
Meets acceptable level of proficiency	3	The person requires some supervision to inspect engines or associated equipment for security/serviceability; finds most major discrepancies without supervision and may overlook some minor discrepancies; provides a satisfactory inspection of engine; usually inspects and ensures there is no FOD matter in the area.
Occasionally meets acceptable level of proficiency	2	The person will occasionally check the accuracy of his work after completion; is careless in inspecting for FOD; finds most major discrepancies and misses numerous minor discrepancies; provides a marginal inspection of engine.
Never meets acceptable level of proficiency	1	The person rarely checks the accuracy of his work after completion; does not consider basic quality control duties, such as inspection for FOD, to be part of his job; requires constant supervision to find almost all discrepancies, whether major or minor.

Dimension 5 (D-5): OMA Maintenance

This refers to specialized maintenance tasks performed at the OMA. Example:  
Installing engine in aircraft.

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of proficiency	5	Makes accurate adjustments on operating engines without supervision; completes all maintenance tasks without supervision.
Frequently exceeds acceptable level of proficiency	4	Makes accurate adjustments on operating engines with minimal supervision; completes general maintenance tasks with minimal supervision.
Meets acceptable level of proficiency	3	Makes accurate adjustments on an operating engine with some supervision or assistance; requires some supervision on some maintenance tasks.
Occasionally meets acceptable level of proficiency	2	Requires substantial supervision when making adjustments on an operating engine; requires substantial supervision on some maintenance tasks.
Never meets acceptable level of proficiency	1	Requires constant supervision or assistance to make adjustments on an operating engine; requires constant supervision on all maintenance tasks.

Dimension 6 (D-6): Troubleshoot

This refers to identification and isolation of various malfunctions in the aircraft engine and its components. Example: Isolating complex system (such as engine fuel system) malfunctions.

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of proficiency	5	Quickly and accurately isolates even the most complex system malfunction without supervision; easily identifies defective components; understands causes of malfunctions.
Frequently exceeds acceptable level of proficiency	4	Isolates complex system malfunctions with minimal supervision; identifies defective components with minimal supervision; always follows correct troubleshooting procedures.
Meets acceptable level of proficiency	3	Isolates complex system malfunctions with some supervision; identifies defective components with some supervision; usually follows correct troubleshooting procedures.
Occasionally meets acceptable level of proficiency	2	Requires substantial supervision to isolate a complex system malfunction; requires substantial supervision to identify defective components; frequently fails to follow correct troubleshooting procedures.
Never meets acceptable level of proficiency	1	Requires constant supervision to isolate simple system malfunctions and identify defective components; is slow in isolating simple system malfunctions; fails to follow correct troubleshooting procedures.

## TASK RATING FORM

The purpose of this rating form is to rate an individual's level of proficiency at performing a number of Navy/Marine Corps Jet Engine Mechanic tasks. Proficiency refers to how skilled someone is at performing various tasks on the job. Remember, we are concerned with the level of ability to perform these tasks, excluding interpersonal factors (willingness to work, cooperating with others) or situational factors (lack of tools or parts, weather conditions).

As you rate each task, ask yourself, "At what level of proficiency could the individual perform this particular task?" Circle the number on the answer sheet that corresponds to the appropriate rating for each task. Please provide a rating for each task on the following pages, even if the individual does not frequently perform the task.

The five levels that will be used on this rating form are listed below:

- 5 -- Always exceeds acceptable level of proficiency
- 4 -- Frequently exceeds acceptable level of proficiency
- 3 -- Meets acceptable level of proficiency
- 2 -- Occasionally meets acceptable level of proficiency
- 1 -- Never meets acceptable level of proficiency

PLEASE RATE ALL TASKS

J-79 OMA TASK RATINGS (T1-T31)

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5 -- Always exceeds acceptable level of proficiency  
4 -- Frequently exceeds acceptable level of proficiency  
3 -- Meets acceptable level of proficiency  
2 -- Occasionally meets acceptable level of proficiency  
1 -- Never meets acceptable level of proficiency

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T1. \_\_\_\_\_ Completes Visual Identification Display System/ Maintenance Action Forms (VIDS/MAF).

T2. \_\_\_\_\_ Inspects engine plumbing.

T3. \_\_\_\_\_ Installs lockwire.

T4. \_\_\_\_\_ Inspects 3000 series trailers for serviceability.

T5. \_\_\_\_\_ Inspects area for foreign object damage (FOD) matter.

T6. \_\_\_\_\_ Inspects first stage compressors.

T7. \_\_\_\_\_ Places protective covers on engines.

T8. \_\_\_\_\_ Transports engines to work sections.

T9. \_\_\_\_\_ Installs tachometer generators.

T10. \_\_\_\_\_ Inspects engine or accessory splines.

T11. \_\_\_\_\_ Installs J-79 engine afterburner secondary flaps.

T12. \_\_\_\_\_ Installs J-79 engine constant speed drives (CSD).

T13. \_\_\_\_\_ Installs J-79 engine exhaust gas temperature thermocouple harness.

T14. \_\_\_\_\_ Installs J-79 engine ignition exciter boxes.

T15. \_\_\_\_\_ Rigs J-79 engine afterburner nozzle assemblies.

T16. \_\_\_\_\_ Rigs J-79 engine inlet guide vane systems.

T17. \_\_\_\_\_ Installs J-79 pressurizing and drain (P&D) valves.

T18. \_\_\_\_\_ Installs J-79 engine afterburner fuel pressurizing control valves.

#### J-79/OMA TASK RATINGS

- T19. \_\_\_\_\_ Isolates J-79 engine fuel system malfunctions when there is low fuel flow and the starting speed is reached but there is no start.
- T20. \_\_\_\_\_ Installs J-79 engine constant speed drive generator assemblies.
- T21. \_\_\_\_\_ Determines source of high oil consumption on J-79 engines.
- T22. \_\_\_\_\_ Isolates J-79 engine starting malfunctions when the engine fails to rotate.
- T23. \_\_\_\_\_ Installs J-79 engine bleed air system components (manifold collector bowls)
- T24. \_\_\_\_\_ Attaches 4000A trailers to J-79 engines.
- T25. \_\_\_\_\_ Inspects J-79 engine aircraft throttle controls for freedom of movement.
- T26. \_\_\_\_\_ Positions the 4000A stands for J-79 engine removals or installations.
- T27. \_\_\_\_\_ Adjusts J-79 operating engines (i.e., idle speed).
- T28. \_\_\_\_\_ Inspects J-79 engines before and after operation.
- T29. \_\_\_\_\_ Isolates J-79 engine exhaust gas temperature malfunctions.
- T30. \_\_\_\_\_ Services J-79 engine oil systems.
- T31. \_\_\_\_\_ Connects JET CAL test equipment to J-79 engine.

## NAVY/MARINE CORPS-WIDE RATING FORM

The purpose of this rating form is to allow you to evaluate an individual's performance on factors important to all sailors or marines regardless of rating or MOS.

Listed below are the factors on which you should rate the individual's own performance.

1. Technical Knowledge/Skill
2. Initiative/Effort
3. Knowledge of and Adherence to Regulations/Orders
4. Integrity
5. Leadership
6. Military Appearance
7. Self Development
8. Self Control

On the pages that follow, read the definition of each performance factor carefully. Use the behavioral examples as indicators of behavior typically displayed at the various levels. Circle the number on the answer sheet that corresponds to the level best describing the individual's performance in each area.

The five levels that will be used on this rating form are listed below:

- 5 -- Always exceeds acceptable level of proficiency
- 4 -- Frequently exceeds acceptable level of proficiency
- 3 -- Meets acceptable level of proficiency
- 2 -- Occasionally meets acceptable level of proficiency
- 1 -- Never meets acceptable level of proficiency

**PLEASE RATE ALL PERFORMANCE FACTORS**

Performance Factor 1 (PF-1): Technical Knowledge/Skill

Displaying job knowledge and skill.

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of performance	5	Displays exceptional knowledge/skill to consistently complete assignments and tasks properly; requires little or no supervision; completes tasks in minimum time.
Frequently exceeds acceptable level of performance	4	Displays considerable knowledge and skill to complete assignments and tasks properly; performs effectively with little supervision; completes tasks quicker than average first-term sailors or marines.
Meets acceptable level of performance	3	Displays good knowledge/skill in most aspects of the job; able to properly complete the majority of tasks; requires supervision only on difficult tasks and assignments; completes work in the same time as other first-term sailors or marines.
Occasionally meets acceptable level of performance	2	Occasionally displays adequate knowledge about how to complete tasks and assignments; quality of work is inconsistent; requires direct supervision on most tasks to ensure quality and accuracy; usually completes tasks within required time.
Never meets acceptable level of performance	1	Does not display knowledge and skill necessary to properly complete tasks and assignments; unable to perform without direct supervision; often fails to complete assignments; performs slower than other first-term sailors or marines.

**Performance Factor 2 (PF-2): Initiative/Effort**

Showing initiative and extra effort on job/mission/assignment.

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of performance	5	Always volunteers when opportunities arise; demonstrates initiative promptly and effectively; enthusiastically works extra hours to ensure completion of project; works to completion when situation becomes difficult.
Frequently exceeds acceptable level of performance	4	Frequently volunteers and demonstrates initiative when opportunities arise; usually performs with enthusiasm despite difficulty; willing to work extra hours to complete assignment.
Meets acceptable level of performance	3	Volunteers for some assignments; willing to put in extra effort and time on priority tasks; does not give up easily when faced with obstacles or difficulty.
Occasionally meets acceptable level of performance	2	Seldom volunteers or displays initiative; may avoid difficult assignments; has a tendency to stop working when tired or bored; will work extra hours only when required.
Never meets acceptable level of performance	1	Displays no initiative and never volunteers for assignments; reluctant to work extra hours; may become hostile when asked to put forth extra effort; performs ineffectively due to lack of effort; gives up easily when faced with a difficult task.

Performance Factor 3 (PF-3): Knowledge of and Adherence to  
Regulations/Orders

Displaying knowledge of and adhering to Naval/Marine Corps unit rules, regulations, and orders and displaying respect for authority.

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of performance	5	Demonstrates an exceptional knowledge and understanding of Naval/ Marine Corps unit rules and regulations. Follows the spirit as well as the letter of rules and regulations; obeys orders quickly; always reports promptly for duty, formations, appointments, etc.; remains alert while on duty even when it is inconvenient to do so.
Frequently exceeds level of performance	4	Demonstrates an excellent knowledge acceptable and understanding of Naval/ Marine Corps unit rules and regulations; follows rules and regulations without fail; always obeys orders; can be counted on to be at appointed area on time; displays appropriate respect for authority.
Meets acceptable level of performance	3	Follows Naval/ Marine Corps unit rules and regulations almost without fail; is knowledgeable of those rules and regulations that concern safety or security; rarely late for duty or formation; never leaves assigned duty section; always obeys orders.
Occasionally meets acceptable level performance	2	Occasionally may fail to follow Naval/ Marine Corps rules or regulations; of occasionally late for duty formations; usually obeys orders but may question them.
Never meets acceptable level of performance	1	Ignores or fails to follow Naval/Marine Corps rules, regulations, or orders; often displays lack of respect toward superiors; may leave assigned work area.

### Performance Factor 4 (PF-4): Integrity

Displaying honesty and integrity in job-related matters.

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of performance	5	Can be trusted to be honest and truthful in all matters even when own self interests might be jeopardized; takes extra steps to protect the security of military equipment/supplies; voluntarily reports thefts, misconduct, and any other violations of military order and discipline.
Frequently exceeds acceptable level of performance	4	Admits job-related mistakes and provides information necessary for administrative decisions; voluntarily reports thefts, misconduct, and other incidents of military violation; never misuses military equipment/supplies.
Meets acceptable level of performance	3	Admits job-related mistakes and provides information necessary for administrative decisions; reports obvious misconduct and military violations; unlikely to misuse military equipment/supplies; returns found property to rightful owner.
Occasionally meets acceptable level of performance	2	Seldom admits job-related mistakes and may make excuses to avoid responsibility for such mistakes; will provide information regarding thefts, misconduct, and other military violations if asked by supervisor but will not volunteer such information; returns found property to rightful owner.
Never meets acceptable level of performance	1	Denies responsibility for job-related mistakes and puts the blame on someone else; assists in covering up or is otherwise directly involved in incidents of theft, misconduct, and other military violations; dishonest and deceitful in dealings with supervisor and peers; falsifies military forms, vouchers, or records to further personal gain.

### Performance Factor 5 (PF-5): Leadership

Performing in a leader role, as required, and providing support for fellow unit members.

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of performance	5	Performs very effectively when placed in leadership position; takes charge when necessary and fills in effectively for supervisor; is sought out as a resource person and serves as a role model; always looks out for and supports fellow unit members when they are in trouble, need encouragement, performing poorly, etc.
Frequently exceeds acceptable level of performance	4	Performs effectively in structured leadership situations; usually looks out for and supports fellow unit members when they are in trouble, need encouragement, performing poorly, etc.
Meets acceptable level of performance	3	Performs effectively in structured leadership situations and less well in difficult situations requiring hard judgments and quick decisions; is supportive of fellow unit members at important times.
Occasionally meets acceptable level of performance	2	Seldom effective in leadership positions; will not go out of way to provide support, encouragement, etc., to fellow unit members; reluctant to help others complete their assignments.
Never meets acceptable level of performance	1	Unable to perform in leadership positions; unable to step in and take charge even when necessary; unwilling to provide support, encouragement, etc., to fellow unit members; shows impatience and insensitivity to other unit personnel.

**Performance Factor 6 (PF-6): Military Appearance**

Maintaining proper military appearance and meeting military standards for physical fitness.

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of performance	5	Always properly and neatly dressed, even, beyond the requirements of military standards; consistently presents an impressive appearance; maintains excellent personal hygiene and cleanliness even under dirty or difficult conditions; is in excellent physical condition and substantially exceeds Naval/Marine Corps standards for physical stamina and strength.
Frequently exceeds acceptable level of performance	4	Maintains a crisp, neat military appearance; maintains personal hygiene and cleanliness; is in excellent physical condition and often exceeds Naval/ Marine Corps standards for physical stamina and strength.
Meets acceptable level of performance	3	Dresses neatly and properly during duty, and at inspections; pays sufficient attention to personal cleanliness and hygiene to meet is in military standards; good physical condition and meets Naval/Marine Corps standards for weight, physical stamina, and strength.
Occasionally meets acceptable level of performance	2	Usually dresses properly for inspections but often fails to present a proper military appearance on a daily basis; is in fair physical condition and may fail Naval/Marine Corps standards for weight, physical stamina, or strength.
Never meets acceptable level of performance	1	Consistently dresses sloppily and/or improperly for duty and at inspections; fails to attend to personal cleanliness and hygiene; is in poor physical condition and fails Naval/ Marine Corps standards for weight, physical stamina, and strength.

**Performance Factor 7 (PF-7): Self Development**

Developing job-related skills.

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of performance	5	Devotes a substantial amount of off-duty time to studying and practicing to become as proficient as possible in important job-related skills; enthusiastically takes on additional job duties and responsibilities to prepare for promotion; actively seeks out opportunities for self-improvement; completes Naval/Marine Corps course requirements in less than prescribed time, and consistently obtains above-average scores.
Frequently exceeds acceptable level of performance	4	Studies and practices during off-duty hours to improve job-related skills; takes advantage of most opportunities presented to take on additional responsibility that would help prepare for promotion; completes Naval/Marine Corps course requirements in less than required time.
Meets acceptable level of performance	3	Is aware of personal weakness in job-related skills and participates in training programs to improve these areas; sometimes reluctant to take on extra responsibility that would help prepare for promotion; completes Naval/Marine Corps course requirements within prescribed time.
Occasionally meets acceptable level of performance	2	Participates half-heartedly without seriously applied effort in training programs; studies manuals or practices to improve job skills only when ordered to do so; avoids additional responsibility that might help prepare for promotion; may require retesting to fulfill Naval/Marine Corps course requirements.
Never meets acceptable level of performance	1	Does not participate in training programs; makes no effort to improve below standard job skills; fails Naval/Marine Corps course requirements due to lack of interest, effort, or attention.

**Performance Factor 8 (PF-8): Self Control**

Controlling personal behavior.

<u>Levels</u>	<u>Circle the Number</u>	<u>Behavioral Examples</u>
Always exceeds acceptable level of performance	5	Meets all financial obligations; consistently displays exceptional emotional maturity; does not allow personal matters to interfere with professional duties.
Frequently exceeds acceptable level of performance	4	Meets all financial obligations; usually displays appropriate emotional behavior and control; does not allow personal problems to influence job performance.
Meets acceptable level of performance	3	Meets most financial and legal obligations; related problems are minor and infrequent and rarely interfere with job performance; usually displays emotional maturity.
Occasionally meets acceptable level of performance	2	Frequently has financial problems due to lack of self discipline; attempts to control temper and emotional behavior but frequently fails to do so; allows personal matters to effect job performance.
Never meets acceptable level of performance	1	Does not attempt to control temper or otherwise displays inappropriate behavior; consistently requires time off from duty to attend to financial, legal, or other personal problems.

**APPENDIX F**

**RATING FORM ANSWER SHEETS AND QUESTIONNAIRE  
FOR  
NAVY/MARINE CORPS J-79 JET ENGINE MECHANICS  
AT THE  
ORGANIZATIONAL MAINTENANCE ACTIVITY (OMA)**

JET ENGINE MECHANIC RATING FORM ANSWER SHEET OMA EXAMINEES

Your Name \_\_\_\_\_ SSN \_\_\_\_\_

1. Who are you making these ratings for? (Circle One)

**SKIP QUESTIONS 2-5 IF YOU ARE RATING YOURSELF.**

2. Name of Person You are Rating if other than yourself  
Name \_\_\_\_\_ SSN \_\_\_\_\_

3. How many months have you known the individual being evaluated? \_\_\_\_\_

4. How often do you observe the individual you are evaluating in the performance of his/her job? (Circle One)

(1) NEVER      (2) RARELY      (3) SOMETIMES      (4) OFTEN      (5) VERY OFTEN

5. How often do you interact outside of the work setting with the individual you are evaluating? (Circle One)

(1) NEVER      (2) RARELY      (3) SOMETIMES      (4) OFTEN      (5) VERY OFTEN

## RATINGS

## GLOBAL RATINGS

TP. 5 4 3 2 1

IP. 5 4 3 2 1

## **DIMENSIONAL RATINGS**

D1. 5 4 3 2 1

D2. 5 4 3 2 1

D3. 5 4 3 2 1

D4. 5 4 3 2 1

D5. 5 4 3 2 1

D6. 5 4 3 2 1

TURN THIS ANSWER SHEET OVER TO ENTER YOUR TASK RATINGS AND YOUR NAVY/MARINE CORPS WIDE RATINGS.

IMA PERSONNEL SHOULD USE T1 THROUGH T26 TO RECORD THE TASK RATINGS.  
PERSONNEL SHOULD USE T1 THROUGH T31.

OMA

TASK RATINGS						TASK RATINGS CONTINUED					
T1.	5	4	3	2	1	T17.	5	4	3	2	1
T2.	5	4	3	2	1	T18.	5	4	3	2	1
T3.	5	4	3	2	1	T19.	5	4	3	2	1
T4.	5	4	3	2	1	T20.	5	4	3	2	1
T5.	5	4	3	2	1	T21.	5	4	3	2	1
T6.	5	4	3	2	1	T22.	5	4	3	2	1
T7.	5	4	3	2	1	T23.	5	4	3	2	1
T8.	5	4	3	2	1	T24.	5	4	3	2	1
T9.	5	4	3	2	1	T25.	5	4	3	2	1
T10.	5	4	3	2	1	T26.	5	4	3	2	1
T11.	5	4	3	2	1	T27.	- T31 for OMA Ratings				
T12.	5	4	3	2	1	T27.	5	4	3	2	1
T13.	5	4	3	2	1	T28.	5	4	3	2	1
T14.	5	4	3	2	1	T29.	5	4	3	2	1
T15.	5	4	3	2	1	T30.	5	4	3	2	1
T16.	5	4	3	2	1	T31.	5	4	3	2	1

NAVY/MARINE CORPS WIDE RATINGS

PF1.	5	4	3	2	1
PF2.	5	4	3	2	1
PF3.	5	4	3	2	1
PF4.	5	4	3	2	1
PF5.	5	4	3	2	1
PF6.	5	4	3	2	1
PF7.	5	4	3	2	1
PF8.	5	4	3	2	1

## RATING FORMS QUESTIONNAIRE

YOUR NAME \_\_\_\_\_ SSN \_\_\_\_\_

We are interested in your beliefs about the usefulness of the rating forms you have just completed. Using the scale provided below, please rate each form as directed in the question.

- 1 - Not at all
- 2 - To a small extent
- 3 - To a moderate extent
- 4 - To a great extent
- 5 - To a very great extent

1. How motivated were you to accomplish the rating form to the best of your ability? \_\_\_\_\_
2. Accuracy of a rating form means: How well you can use the form to correctly rate a person's job proficiency/ performance. That is, if someone were to look at the ratings on the form, would they be able to get a true picture of the performance level of the person being rated. How accurately were you able to rate yourself using the:
  - a. \_\_\_\_\_ Global Rating Form
  - b. \_\_\_\_\_ Dimensional Rating Form
  - c. \_\_\_\_\_ Task Rating Form
  - d. \_\_\_\_\_ Navy/Marine Corps-Wide Rating Form
3. Discrimination of a rating form means: Can you tell the difference between good and poor performers by looking at the ratings they were given? How well would you be able to discriminate between good and poor performers using the:
  - a. \_\_\_\_\_ Global Rating Form
  - b. \_\_\_\_\_ Dimensional Rating Form
  - c. \_\_\_\_\_ Task Rating Form
  - d. \_\_\_\_\_ Navy/Marine Corps-Wide Rating Form
4. Acceptability of a rating form means: How easy is it to use the form to rate someone? That is, how clear are the instructions and how good do you think the ratings are? How acceptable are the different rating forms?
  - a. \_\_\_\_\_ Global Rating Form
  - b. \_\_\_\_\_ Dimensional Rating Form
  - c. \_\_\_\_\_ Task Rating Form
  - d. \_\_\_\_\_ Navy/Marine Corps-Wide Rating Form

Next, we would like you to compare the rating forms to each other. For each category (Accuracy, Discrimination, Acceptability), please rank-order the four rating forms using a "1" for the best, a "2" for the next best, and so on. For example, if you believe that the Navy/Marine Corps-Wide rating form provides the most accurate ratings of a person's performance, you should place a "1" in the space beside the "Navy/Marine Corps-Wide Rating Form". Similarly, if you believe that the Task Rating Form is next to the worst at providing accurate ratings, you should place a "3" in the space next to "Task Rating Form."

5. Please be sure to rank each rating form in each category and to use the ranking number (1,2,3,4) only once in each category.

(1 = BEST; 2 = NEXT BEST; 3 = NEXT TO WORST; 4 = WORST)

a. Accuracy

- Global Rating Form
- Dimensional Rating Form
- Task Rating Form
- Navy/Marine Corps-Wide Rating Form

b. Discrimination

- Global Rating Form
- Dimensional Rating Form
- Task Rating Form
- Navy/Marine Corps-Wide Rating Form

c. Acceptability

- Global Rating Form
- Dimensional Rating Form
- Task Rating Form
- Navy/Marine Corps-Wide Rating Form

## GENERAL BACKGROUND

YOUR NAME \_\_\_\_\_ SSN \_\_\_\_\_

The following questions pertain to your work experience, your work unit, and your feelings about your job. This information will be used for research purposes only. Please check/fill in each blank as accurately as possible.

1. Present Rank/Rate:  E-1  E-5  
 E-2  E-6  
 E-3  E-7  
 E-4  E-8
  
2. Months in present unit: \_\_\_\_\_
  
3. Months you have been a Jet Engine Mechanic on the J-79 engine model system : \_\_\_\_\_
  
4. Area where most of your work is done:  IMA  OMA
  
5. Months in IMA: \_\_\_\_\_; months in OMA: \_\_\_\_\_
  
6. Please list any additional Jet Engine Mechanic experience below.

Engine Type	Amount of Experience (months)
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>

7. In general, how is morale in your unit? (Check one)

- Extremely high
- Fairly high
- Average
- Fairly low
- Extremely low

TURN SHEET OVER FOR ADDITIONAL QUESTIONS

Use the scale provided below to respond to statements 8-22.

- 5 - Strongly Agree
- 4 - Agree
- 3 - Neither Agree nor Disagree
- 2 - Disagree
- 1 - Strongly Disagree

8. \_\_\_\_ The technical manuals and other written materials that I use in my job are clear and understandable.

9. \_\_\_\_ The technical manuals and other written materials that I use in my job are available when I need them.

10. \_\_\_\_ The tools and equipment that I use in my job are available when I need them.

11. \_\_\_\_ I am able to use my skills and talents in my job.

12. \_\_\_\_ I get a sense of accomplishment from my job.

13. \_\_\_\_ I feel that my supervisor is concerned about my well-being.

14. \_\_\_\_ I feel that my supervisor gives me the support that I need to do my job.

15. \_\_\_\_ I feel that my job is interesting.

16. \_\_\_\_ I get a sense of pride from being in the Navy or Marine Corps.

17. \_\_\_\_ I feel that my job is important to the overall mission of the Navy or Marine Corps.

18. \_\_\_\_ I am satisfied with my job.

19. \_\_\_\_ I feel a strong sense of responsibility to my unit.

20. \_\_\_\_ I perform my duties to the best of my abilities.

21. \_\_\_\_ My technical school training provided me with the basic skills and knowledge needed to do my job.

22. \_\_\_\_ My on-the-job training provides me with the additional skills and knowledge needed to do my job.

Additional Comments (If referring to a specific question, please give the question number)

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## J-79 OMA EXAMINEE TASK EXPERIENCE RATINGS

COMPLETE THIS TASK EXPERIENCE RATING QUESTIONNAIRE ONLY IF YOU COMPLETED THE RATING FORMS ON YOURSELF. IF YOU ARE A SUPERVISOR OR A PEER DO NOT COMPLETE THIS QUESTIONNAIRE.

NAME \_\_\_\_\_ SSN \_\_\_\_\_

Read each task statement and think about the amount of relevant on-the-job experience you've had on that task, excluding technical school training. Using the scale provided, write the number corresponding to your response in the space beside the task.

1. No Experience
2. A Slight Amount
3. A Small Amount
4. A Moderate Amount
5. A Considerable Amount
6. A Great Amount
7. A Very Great Amount

1. \_\_\_\_\_ Completes Visual Identification Display System/ Maintenance Action Forms (VIDS/MAF).
2. \_\_\_\_\_ Inspects engine plumbing.
3. \_\_\_\_\_ Installs lockwire.
4. \_\_\_\_\_ Inspects 3000 series trailers for serviceability.
5. \_\_\_\_\_ Inspects area for foreign object damage (FOD) matter.
6. \_\_\_\_\_ Inspects first stage compressors.
7. \_\_\_\_\_ Places protective covers on engines.
8. \_\_\_\_\_ Transports engines to work sections.
9. \_\_\_\_\_ Installs tachometer generators.
10. \_\_\_\_\_ Inspects engine or accessory splines.
11. \_\_\_\_\_ Installs J-79 engine afterburner secondary flaps.
12. \_\_\_\_\_ Installs J-79 engine forward top anti-icing ducts.
13. \_\_\_\_\_ Installs J-79 engine exhaust gas temperature thermocouple harness.
14. \_\_\_\_\_ Installs J-79 engine ignition exciter boxes.
15. \_\_\_\_\_ Rigs J-79 engine afterburner components.

## J-79 OMA TASK EXPERIENCE RATINGS

Read each task statement and think about the amount of relevant on-the-job experience you've had on that task, excluding technical school training. Using the scale provided, write the number corresponding to your response in the space beside the task.

1. No Experience
2. A Slight Amount
3. A Small Amount
4. A Moderate Amount
5. A Considerable Amount
6. A Great Amount
7. A Very Great Amount

16. \_\_\_\_\_ Rigs J-79 engine inlet guide vane systems.
17. \_\_\_\_\_ Installs J-79 engine pressurizing and drain (P&D) valves.
18. \_\_\_\_\_ Installs J-79 engine afterburner fuel pressurizing valves.
19. \_\_\_\_\_ Isolates J-79 engine fuel system malfunctions when there is low fuel flow and the starting speed is reach but there is no start.
20. \_\_\_\_\_ Installs J-79 engine constant speed drive generator assemblies.
21. \_\_\_\_\_ Determines source of high oil consumption on J-79 engines.
22. \_\_\_\_\_ Isolates J-79 engine starting malfunctions when the engine fails to rotate.
23. \_\_\_\_\_ Installs J-79 engine bleed air system manifolds.
24. \_\_\_\_\_ Attaches 4000A trasilers to J-79 engines.
25. \_\_\_\_\_ Inspects J-79 engine aircraft throttle controls for freedom of movement.
26. \_\_\_\_\_ Positions the 4000A stands for J-79 engine removals or installations.
27. \_\_\_\_\_ Adjusts J-79 operating engines (i.e., idle speed).
28. \_\_\_\_\_ Inspects J-79 engines before and after operation.
29. \_\_\_\_\_ Isolates J-79 engine exhaust gas temperature malfunctions.
30. \_\_\_\_\_ Services J-79 engine oil systems.
31. \_\_\_\_\_ Connects JET CAL test equipment to J-79 engines.

**APPENDIX G**

**WALK THROUGH PERFORMANCE TESTING  
ADMINISTRATION MANUAL  
FOR  
NAVY/MARINE CORPS J-79 JET ENGINE MECHANICS  
AT THE  
INTERMEDIATE MAINTENANCE ACTIVITY (IMA)  
AND  
ORGANIZATIONAL MAINTENANCE ACTIVITY (OMA)**

## TABLE OF CONTENTS

<u>Chapter</u>	<u>Page</u>
1.0 Introduction.....	1
2.0 General Testing Conditions.....	2
2.1 Standard Procedures.....	2
2.2 Physical Conditions.....	2
2.3 Items Supplied by the Administrator.....	2
2.4 Items Supplied by the Unit.....	3
2.5 Identifying the Incumbent and Tasks to be Evaluated.....	3
2.6 Organizing and Scheduling the Tasks to be Evaluated.....	4
2.7 Starting and Stopping the Test.....	4
2.8 Testing Time.....	5
2.9 Rapport.....	5
2.10 Asking Interview Questions.....	6
2.11 Probing of Responses.....	6
2.12 The Test Booklets.....	7
2.13 Selecting the Appropriate Test Booklet.....	7
3.0 General Directions for Administration.....	8
3.1 General Directions.....	8
3.2 Deviations.....	10
3.2.1 Administrator Related Deviations.....	11
3.2.2 Base Related Deviations.....	12
3.2.3 Equipment Related Deviations.....	13
3.2.4 Incumbent Related Deviations.....	15
4.0 Directions for Scoring.....	18
4.1 General Directions.....	18
4.2 Overall Performance Rating.....	18
5.0 Test Administrator Reminders.....	19
Appendix A Forms to Accompany Test Item 134.....	20
Appendix B Testing Schedules.....	22
J-79 IMA/IMA.....	23
J-79 OMA/OMA.....	24
J-79 IMA/OMA.....	25
Appendix C WTPT Answer Sheets For Navy/Marine Corps Jet Engine Mechanics.....	26

## 1.0 INTRODUCTION

These Walk Through Performance Tests measure the job proficiency of Navy/Marine Corps first term jet engine mechanics on a representative sample of job tasks. Either a hands-on or interview item was written for each task. However, in some instances both hands-on and interview items were developed to ensure that the interview items measured what they were intended to measure.

The test booklets are separated into two main sections. The first section contains items that are common to both the Intermediate Maintenance Activity (IMA) and the Organizational Maintenance Activity (OMA). The second section contains items that are unique to one of the two maintenance levels.

The tests are administered by subject matter experts, who observe task performance and record the test scores.

## **2.0 GENERAL TESTING CONDITIONS**

### **2.1 Standard Procedures**

Administrators of Walk-Through Performance Testing should be thoroughly trained in the standard procedures of this manual to enable them to follow the instructions, observe the incumbent, and record responses without hesitation. In addition, the administrators should adhere to specific directions given in this manual at all times. Deviations must be approved by the Air Force Human Resource Laboratory (AFHRL) or the Navy Personnel Research Development Center (NPRDC).

### **2.2 Physical Conditions**

The test should be administered in the AIMA power plant or in the training center with conditions as close to normal as possible. IMA and OMA personnel should perform work sample tasks on a designated engine in the AIMA power plant unless it is impossible to perform an OMA task in that environment. Interview items should be integrated into a logical sequence with the hands-on items and administered near the designated engine.

### **2.3 Items Supplied by the Administrator**

The administrator should make available:

    The numbers of the publications to be used

    Defective parts to be inspected

    Test Booklet

Interview test items  
VIDS/MAV Form (See Appendix A)  
Background sheet for item 134  
Schedules  
Scratch pad  
Timing device  
Incumbent instructions  
General Utility/Acceptability Form

**2.4 Items Supplied by the Unit**

Designated engine(s)  
Components  
Tools  
Appropriate Technical Publications  
Personnel to assist

**2.5 Identifying the Incumbents and the Tasks to be Evaluated**

All IMA and OMA first enlistment personnel at the air station, with 0-48 months service, will be considered for Walk-Through Performance Testing evaluations. Individuals normally working the night shift will be rescheduled and evaluated from 0730-1630 if possible. Exceptions will be considered on a case-by-case basis in consultation with the test administration team Task Leader.

## **2.6 Organizing and Scheduling the Tasks to be Performed**

The schedule for the administration of the test items will be organized in such a way as to enable two incumbents to work on one engine at the same time without interfering with each other's performance. An attempt should be made to organize the tasks into modular units whenever possible. For example, task 373 (install lockwire) and task 363 (install exciter box) should be scheduled back-to-back. Standard schedules should be used whenever possible. Several standard schedules are illustrated in Appendix B.

## **2.7 Starting and Stopping the Tests**

Testing should not begin until after the administrator ensures that all the necessary technical publications, tools, and equipment are either on site or readily available for the tasks scheduled to be performed during the next testing session. The administrator should follow the time limit guide indicated on each test item and start each task in the following manner:

- o State the objective of each test item.
- o Ask number of times incumbent has performed task.
- o Ask the incumbent how many weeks have lapsed since he/she last performed the task.
- o Read the instructions to the incumbent.
- o Allow the incumbent time to gather all tools and material.
- o Ask the incumbent if he/she is ready.

- o Begin timing the task when the incumbent is ready.

Most incumbents will complete each task during the stated time. If the incumbent does not complete a task within the time limit, the administrator should ask the incumbent to stop performing the task. The administrator should remind the incumbent that time is limited and that it is not necessary to observe all the steps of every task.

#### **2.8 Testing Time**

Testing time will be limited to seven hours for each incumbent plus one half hour of preparation time before each testing session. Testing will occur in two four-hour sessions (either on the same day or consecutively over two days). Testing will run from 0700 to 1100 hours and from 1200 to 1600 hours or from 0730 to 1130 hours and from 1230 to 1630 hours.

#### **2.9 Rapport**

The administrator should speak in a normal voice and be courteous but not artificial. Try to arouse the incumbent's interest. Present the tests in a business-like manner but do not rush the incumbent. Make a smooth transition between tasks. Begin the session by reading the instructions which tell the incumbent what to expect during the testing time. Do not indicate to the incumbent that a response was right or wrong but give encouragement to continue if a response is incomplete.

## **2.10 Asking Interview Questions**

Obtain facts quickly, accurately, and completely in an objective but friendly manner. Ask every question on the test. Do NOT assume that an incumbent knows the correct response to a question because he/she included the answer when responding to another question. Do not suggest answers. Be polite and courteous throughout the interview. Be impersonal but NOT rigid. Be patient. Allow the incumbent sufficient time to answer each question. Provide transition between items or steps, but make sure that these statements are neutral, not suggestive. Remember to complete all the steps on all the tasks and record questionable responses directly on the test booklets.

## **2.11 Probing of Responses**

Remain neutral and nondirective when probing for additional information. Ask nonthreatening questions that convey the need for more detail, not the feeling that the first answer was wrong. Use one or more of the following neutral techniques to stimulate complete, understandable answers.

- o Repeat the question.
- o Remain silent, but display an expectant look or nod.
- o Ask a neutral question, such as:
  - Could you tell me more?
  - Could you be more specific?
  - Anything else?

## **2.12 The Test Booklets**

There are two Navy/Marine Corps WTPT booklets to measure the performance of first enlistment jet engine mechanics working on the J-79 engine. The booklets are divided into two sections. The first section contains items to measure tasks common to both maintenance activities (IMA and OMA). These items are the same in both booklets. The second section has items unique to the either the IMA or the OMA level.

The Walk Through Performance Test (WTPT) booklets are identified by one of the following:

NAVY/MARINE CORPS JET ENGINE MECHANIC J-79 IMA

NAVY/MARINE CORPS JET ENGINE MECHANIC J-79 OMA

## **2.13 Selecting the Appropriate Test Booklet**

The administrator should determine the maintenance activity in which the incumbent works, then choose the respective test booklet.

### 3.0 DIRECTIONS FOR ADMINISTRATION

#### 3.1 General Directions

1. Evaluate the performance of as many IMA and OMA first termers with 0 to 48 months service as possible. Because the tests will only be administered between the hours of 0700 and 1630, incumbents who normally work at night should be rescheduled to day duty time if possible. If the incumbent cannot be rescheduled, he/she will not be evaluated with WTPT.
2. Ensure that:
  - a. The PUB for installing a pressurizing and drain (P&D valve and the PUB for general torquing procedures are both on the PUB shelf and that all other PUBs that will be used as a guide are placed by the designated engine.
  - b. The designated engine and components have been configured correctly.
  - c. All tools and materials are readily available.
3. Select the appropriate test booklet for each incumbent being evaluated.
4. Administer the tests using the standardized schedules located in Appendix B whenever possible. Should it become

necessary to deviate from these schedules, organize the temporary schedule in such a way as to avoid interfering with the performance of the second incumbent working on the same engine. Integrate the interview items with the hands-on items whenever possible. Include a break for the incumbent and yourself. Always check with the other test administrators before attempting to develop a temporary schedule to ensure that one or more of the administrators has not already deviated from the established schedule.

5. Read the general instructions, which are located in the front of each test booklet, to EVERY incumbent as soon as the incumbent arrives for the first testing session. Show the incumbent an example of the hands-on and interview items. Use the Air Force J-79 WTPT task 347 (install starter) as the example.

6. If the incumbent does not complete a task within the appointed time limit shown on the test item, say to the incumbent, "That covers this task. Let's move on. You may take a five minute break and then begin the next task which is \_\_\_\_\_. \_\_\_\_\_. If the incumbent completes the session before the scheduled time, allow the incumbent to go back to normal work activities. DO NOT attempt to administer items that were not scheduled for that session.

7. Follow the unique instructions provided for each item such as where to evaluate the task (in the by the engine in the power plant or in the training center), time limits, and what components to install. Read all instructions and each interview question to the incumbent and allow the incumbent to read the same information from the instruction or interview question notebook. Make a smooth transition when completing one test item and continuing on to another.
8. Instruct the incumbent to tell you if he/she plans to deviate from the steps in the technical publication. This is permissible if the deviation or substitution is in accordance with local policy.
9. Do not allow the incumbent to see pages of the test booklets.
10. Do not leave any blanks. Indicate any questionable responses directly on the tests or use the answer sheets provided (see Appendix C).
11. Do not tell the incumbent that he/she passed or failed. Just say "thank you." Remember, this is an evaluation of the enlistment process, not an individual.

### **3.2 Deviations**

Document all deviations. Use the following as a guide for possible deviations and the appropriate action to take.

**3.2.1 Administrator Related**

a. Administrator is unable to complete the evaluation because of illness.

ACTION: Reschedule the incumbent for a time after all the previously scheduled incumbents have completed their sessions. If a task was interrupted, begin the new session at the beginning of the task that was interrupted. If the original administrator is unable to evaluate the incumbent at this time, schedule an alternate administrator.

b. Test booklets, fuel or oil lines, or interview items are lost.

ACTION: Contact the Task Leader who will contact NPRDC. Supply complete details and abide by the NPRDC final decision.

c. The incumbent is unable to understand the administrator.

ACTION: Exchange incumbents with another administrator.

d. Wrong test booklet is used for a functional area.

ACTION: Salvage as much of the test as possible.

### 3.2.2 Air Station Related Deviations

a. Air station personnel are unable to support the testing procedure because of an unscheduled inspection or some other unforeseen event.

ACTION: Contact the task leader who will confer with NPRDC. Supply complete details and abide by their final decision.

b. Air station personnel say they will not allow the required number of installations/removal repetitions because of possible equipment damage.

ACTION: Contact the team leader who will confer with NPRDC for further guidance while conducting as many task repetitions as the base personnel will allow.

c. Air station personnel are unable to provide the required number of people to complete the rating forms.

ACTION: Contact task leader who will confer with NPRDC. Supply complete details and abide by their decision.

d. Air station personnel insist on knowing the evaluation results.

ACTION: Explain that the administrators have specific directions from NPRDC not to release these results to anyone except NPRDC personnel. Inform them that the

incumbents have been assured that such information would be kept confidential. If the individual still insists, give him the name and phone number of the NPRDC contact.

### 3.2.3 Equipment Related Deviations

a. Specific tool or material is unavailable.

ACTION: Try to find a substitute. If a substitute is not available, check with the activity chief and omit the step(s) or test item if necessary.

b. Correct engine configuration or component is unavailable.

ACTION: Examine other options available and contact Task Leader for final procedure to be followed.

c. Engine or component is configured incorrectly.

ACTION: Administer another test item or items while the engine or component is being configured correctly, then when the engine or component is configured, administer the original test item. Ensure that the new schedule does not result in the two incumbents interfering with each other's performance.

d. Technical Publication is unavailable.

ACTION: Allow the incumbent to use the administrator's copy of the PUB.

e. Equipment is unavailable for viewing during the interview.

ACTION: Administer the test item anyway.

f. Tool or equipment is damaged during evaluation through no fault of the incumbent or the damage is reparable.

ACTION: Discontinue the evaluation, record the time and make note of the situation. Tell the incumbent to get a replacement and retest item if possible. If the incumbent is unable to find a replacement within fifteen (15) minutes, make note and go on to the next test item.

g. Error is found in test, or recent PUB change is discovered and the steps are no longer valid.

ACTION: Contact Task Leader for guidance.

h. Problems occur such as loss of electricity or heat.

ACTION: If the shop personnel continue to work then continue the evaluations. If the shop personnel discontinue work, discontinue the evaluations and record the time directly on the test item. If the interruption is for an hour or less, record the restart time and continue with the evaluation even if it means keeping the incumbent longer than the normal work day. Be sure to coordinate this with the supervisor. If the interruption is for longer than an hour, tell the incumbent that his/her evaluation will be continued at

a later date and allow the incumbent to go back to his/her normal work area. Reschedule the incumbent for a time after all the previously scheduled incumbents have completed their sessions. Begin the new session at the beginning of the task that was interrupted.

- i. Natural phenomenon (snow storm, ice, etc.) that might cause the base to shut down.

ACTION: Contact task leader for guidance.

#### 3.2.4 Incumbent Related Deviations

- a. Incumbent is unable to complete evaluation because of illness or injury.

ACTION: If the injury or illness is of a short duration, reschedule the incumbent for a time after all the previously scheduled incumbents have completed their sessions. If a task was interrupted, begin the new session at the beginning of the task that was interrupted. If the illness or injury is of a duration longer than the team is scheduled to be at the base, disregard the incumbent's previous evaluations and omit the data.

- b. Incumbent is late for the testing session.

ACTION: If the incumbent is less than an hour late for the session, begin the evaluation at the point where the

incumbent would have progressed so the incumbent's performance does not interfere with the performance of the other incumbent. Evaluate the previously omitted test items at the end of the session in the standardized sequence.

c. Incumbent does not show up for testing.

ACTION: Reschedule the incumbent for a time after all the previously scheduled incumbents have completed their sessions.

d. Incumbent takes excessive amount of time to perform the task.

ACTION: Stop the evaluation at the cut-off time indicated on the test item. Count any unanswered questions or unperformed steps as incorrect. Go on to the next test item.

e. Incumbent is about to damage the equipment or commit a safety violation.

ACTION: Stop the incumbent. Tell the incumbent what corrective action to take. Consider the step incorrect. Instruct the incumbent to go on to the next step.

f. Incumbent damages the equipment or commits a safety violation.

ACTION: Stop the incumbent. Consider the step incorrect. Replace the equipment if necessary. Instruct the incumbent to go on to the next step, if possible. If damage is irreparable, consider the test item failed.

g. Incumbent receives excessive amount of help from helper.

ACTION: Score as appropriate and note that assistance was received from helper.

h. No helper is available to help the incumbent.

ACTION: Help the incumbent yourself but ensure that you only assist.

i. Incumbent does not understand an interview question.

ACTION: Restate the question as written, if there is still no understanding do not give credit; incumbent fails the question. Note that question was not understood.

j. Night shift incumbent is unavailable for daytime testing.

ACTION: Contact Task Leader for guidance.

k. Cheating

ACTION: Disregard the incumbent's entire evaluation of the task. Note that cheating occurred.

## 4.0 DIRECTIONS FOR SCORING

### 4.1 General Directions

If you are recording the incumbents' responses directly on the test book, place a check mark ( ) in the "yes" column if the incumbent performed or answered the step correctly. Place a checkmark in the "no" column if the incumbent responded incorrectly.

If you are recording the incumbents' responses on the answer sheet, print a "Y" in the respective blank space if the incumbent responded correctly and an "N" if the response was incorrect. You will be advised by the task leader which way to record the responses.

### 4.2 Overall Performance Rating

Think of the incumbent's performance of each test item (task) as a whole. Using the following scale, rate the incumbent's performance for each test item (task) and record the rating directly on the respective rating form located behind each test item in the test booklet.

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

## 5.0 TEST ADMINISTRATOR REMINDERS

### ENSURE THAT:

- ENTIRE ID IS OBTAINED (NAME & SSN) AND IS RECORDED THE SAME ON ALL DOCUMENTS PERTAINING TO THE INCUMBENT
- YOUR NAME AND # IS RECORDED
- ALL BLANKS ARE FILLED IN
- START, STOP, AND REQUIRED TIME ARE RECORDED
- REQUIRED TIME DOES NOT EXCEED THE MAX TIME
- NUMBER OF TIMES PERFORMED IS LIMITED TO 999
- NUMBER OF TIMES PERFORMED IS RECORDED IN TOTAL NUMBERS
- NUMBER OF TIMES PERFORMED IS OBTAINED FOR TEST ITEMS
- WHEN LAST PERFORMED IS RECORDED IN WEEKS
- EITHER YES OR NO BLANKS ARE CHECKED (NO DOUBLE CHECKMARKS ARE MADE) OR "Y" OR "N" IS ENTERED ON ANSWER SHEETS
- CHECKMARKS ARE NOT PROCEEDED BY 1/2
- ENTRIES ARE MADE IN THE RESPECTIVE BLANKS (NOT NEXT TO THEM)
- OVERALL PERFORMANCE RATING IS RECORDED
- VID/MAF FORM IS ATTACHED TO THE LAST PAGE OF THE INCUMBENT'S TEST BOOK OR ANSWER SHEET
- THE GENERAL UTILITY ACCEPTABILITY QUESTIONNAIRE IS ACCURATELY COMPLETED AND ATTACHED TO THE LAST PAGE OF THE INCUMBENT'S TEST BOOK OR ANSWER SHEET
- RATINGS ARE GIVEN WHEN INDICATED
- RANKINGS ARE GIVEN WHEN INDICATED
- ONLY ONE DATA POINT IS OBTAINED FOR EACH BLANK ON THE EXPERIENCE SHEET

**APPENDIX A**  
**FORMS TO ACCOMPANY TEST ITEM 134**

No. MCL 8057

COPY 3

MAINTENANCE/PRODUCTION CONTROL VIDS REGISTER COPY  
VIDS/MAF OPNAV 4790/60 (REV. 2-82) S/N 0107-LF-047-9304

**5 PART FORM**  
**USE BALL-POINT PEN PRESS HARD**

ENTRIES REQUIRED SIGNATURE

UNONE LOGS REC

79 08 09 10 11 14 (H-Z) FAILED/REQUIRED MATERIAL  
 INDEX F/P AWP A/T MAL MFGR 19 34 41 43 45 49 53  
 PART NUMBER REF SYMBOL QTY PROJ PRI DATE ORD REQ NO DATE REC

-FOHD-

REPAIR CYCLE		
DATE	TIME	EOC
RECEIVED	808	812
	819	823
IN WORK		827
	830	834
COMPLETED		
AWAITING MAINTENANCE		
838	839 HOURS	843 844 HOURS
		848 849 HOURS

REMOVED/OLD ITEM		
E08 MFGR	E13 SERIAL NUMBER	
E23 PART NUMBER		
E38 DATE RE		
E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/C
DISCREPANCY		

INSTALLED/NEW ITEM		
G08 MFGR	G13 SERIAL NUMBER	
G23 PART NUMBER		
G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES

## ANSWER

Digitized by srujanika@gmail.com

MAINTENANCE SUPPLY RECORD			
JOB	STATUS	DATE	TIME
EOC			
B53	B54	1858	B62
B65	B66	1870	B74
C08	C09	C13	C17
C20	C21	C25	C29
C32	C33	C37	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	1909	D12	D17

		PILOT/INITIATOR
CORRECTIVE ACTION		
<input type="checkbox"/> CF REQ <input type="checkbox"/> DA REQ <input type="checkbox"/> PF <input type="checkbox"/> SCW		

**JOB CONTROL NUMBER**

619 MORE GAMES

JOB CONTROL NUMBER				UP	DOWN	MODEA	PRI	TURN-IN DOCUMENT	SYSTEM/REASON	MCN
400 DRG	411 DAY	4114 SER	4117 SMF							

**APPENDIX B**  
**TESTING SCHEDULES**

IMA-IOMA-I

Time	Test	Min.	Task	Time	Test	Min.	Task
0800	302H	10	Insp 3000 Trailer	0800	363H	15	Inst IGN Exciter
0810	353I	10	Inst A/I Duct	0815	373I	10	Inst Lockwire
0820	353H	30	Inst A/I Duct	0825	373H	10	Inst Lockwire
0850	R1I	10	Inst P&D Valve	0835	385H	25	Rig A/B
0900	R1H	35	Inst P&D Valve	0900	360I	10	Inst EGT Harn
0935	301H	15	Insp Plumbing	0910	360H	20	Inst EGT Harn
0950	R2I	15	Inst ABFP Valve	0930	325I	15	Doil Consp
1005	387I	10	Rig IGV	0945	351I	15	Inst CSD
1015	349H	30	Inst BAS	1000	319I	10	Inst Fuel Mnl
1045				1010	134I	20	VIDS/MAF
				1030	134H	25	VIDS/MAF
				1055			
1300	134I	20	VIDS/MAF	1300	349I	30	Inst BAS
1302	134H	25	VIDS/MAF	1330	387I	10	Rig IGV
1345	363H	15	Inst IGN Exciter	1340	R2I	15	Inst ABFP Valve
1400	373I	10	Inst Lockwire	1355	301H	15	Insp Plumbing
1410	373H	10	Inst Lockwire	1410	353I	10	Inst A/I Duct
1420	238I	15	Inst #3 Bearing	1420	353H	30	Inst A/I Duct
1435	239I	15	Inst #3 Oil Seal	1450	R1I	10	Inst P&D Valve
1450	247I	10	Rem Turb Rotor	1500	R1H	35	Inst P&D Valve
1500	360I	10	Inst EGT Harn	1535	302H	10	Insp 3000 Trailer
1510	360H	20	Inst EGT Harn	1545			
1530	385H	25	Rig A/B	1555			

OMA-IOMA-II

Time	Test	Min.	Task	Time	Test	Min.	Task
0800	302H	10	Insp 3000 Trailer	0800	363H	15	Inst IGN Exciter
0810	353I	10	Inst A/I Duct	0815	373I	10	Inst Lockwire
0820	353H	30	Inst A/I Duct	0825	373H	10	Inst Lockwire
0850	R1I	10	Inst P&D Valve	0835	385H	25	Rig A/B
0900	R1H	35	Inst P&D Valve	0900	360I	10	Inst EGT Harn
0925	301H	15	Insp Plumbing	0910	360H	20	Inst EGT Harn
0950	R2I	15	Inst ABFP Valve	0930	325I	15	DOil Consp
1005	387I	10	Rig IGV	0945	351I	15	Inst CSD
1015	349H	30	Inst BAS	1000	319I	10	Isol Fuel Mal
1045				1010	134I	20	VIDS/MAF
				1030	134H	25	VIDS/MAF
				1055			
1300	134I	20	VIDS/MAF	1300	349H	30	Inst BAS
1320	134H	25	VIDS/MAF	1330	387I	10	Rig IGV
1345	363I	15	Inst IGN Exciter	1340	R2I	15	Inst ABFP Valve
1400	373I	10	Inst Lockwire	1355	301H	15	Inst Plumbing
1410	373H	10	Inst Lockwire	1410	353I	10	Inst A/I Duct
1420	325I	15	DOil Consp	1420	353H	30	Inst A/I Duct
1435	351I	15	Inst CSD	1450	R1I	10	Inst P&D Valve
1450	319I	10	Isol Fuel Mal	1500	R1H	35	Inst P&D Valve
1500	360I	10	Inst EGT Harn	1535	302H	10	Inst 3000 Trailer
1510	360H	20	Inst EGT Harn	1545			
1530	385H	25	Rig A/B	1555			

TMA-1

IMA-II

Time	Test	Min.	Task	Time	Test	Min.	Task
0800	3021	10	Insp 3000 Trailer	0800	363H	15	Inst IGN Exciter
0810	3531	10	Inst A/I Duct	0815	3731	10	Inst Lockwire
0820	353H	30	Inst A/I Duct	0825	373H	10	Inst Lockwire
0850	R1I	10	Inst P&D Valve	0835	385H	25	Rig A/B
0900	R1H	35	Inst P&D Valve	0900	360I	10	Inst EGT Harn
0935	301H	15	Insp Plumbing	0910	360H	20	Inst EGT Harn
0950	R2I	15	Inst ABFP Valve	0930	238I	15	Inst #3 Bearing
1005	387I	10	Rig IGV	0945	239I	15	Inst #3 Oil Seal
1015	349H	30	Inst BAS	1000	247I	10	Rem Turb Rotor
1045				1010	134I	20	VIDS/MAF
				1030	134H	25	VIDS/MAF
				1055			
11300	1341	20	VIDS/MAF	1300	349H	30	Inst BAS
11320	134H	25	VIDS/MAF	1330	387I	10	Rig IGV
1345	363H	15	Inst IGN Exciter	1340	R2I	15	Inst ABFP Valve
1400	373I	10	Inst Lockwire	1355	301H	15	Insp Plumbing
1410	373H	10	Inst Lockwire	1410	353I	10	Inst A/I Duct
1420	238I	15	Inst #3 Bearing	1420	353H	30	Inst A/I Duct
1435	239I	15	Inst #3 Oil Seal	1450	R1I	10	Inst P&D Valve
1450	247I	10	Rem Turb Rotor	1500	R1H	35	Inst P&D Valve
1500	360I	10	Inst EGT Harn	1535	302H	10	Insp 3000 Trailer
1510	360H	20	Inst EGT Harn	1545			
1530	385H	25	Rig A/B	1555			

**APPENDIX C**  
**WTPT ANSWER SHEETS**  
**NAVY/MARINE CORPS J-79 JET ENGINE MECHANICS**

NAVY/MARINE CORPS WTPT IMA ANSWER SHEET

Last Name,	First	MI	SSN			
Date	Base	Branch N/MC	Administrator			
START	I R1	H R1	I R2	I134	H134	<u>H134</u> CONT
FINISH	_____	_____	_____	_____	_____	_____
TIME REQ	_____	_____	_____	_____	_____	_____
# TIME	_____	_____	_____	_____	_____	_____
LAST PERF	_____	_____	_____	_____	_____	_____
1.	_____	1._____	1._____	1._____	1._____	18._____
2.	_____	2._____	2._____	2._____	2._____	19._____
3.	_____	3._____	3._____	3._____	3._____	20._____
4.	_____	4._____	4._____	4._____	4._____	21._____
5.	_____	5._____	5._____	5._____	5._____	22._____
6.	_____	6._____	6._____	6._____	6._____	23._____
7.	_____	7._____	7._____	7._____	7._____	24._____
8.	_____	8._____	8._____	8._____	8._____	25._____
9.	_____	9._____	9._____	9._____	9._____	26._____
10.	_____	10._____	10._____	OP. I134	10._____	27._____
11.	_____	11._____	OP. I R2		11._____	28._____
12.	_____	12._____			12._____	29._____
13.	_____	13._____			13._____	30._____
14.	_____	14._____			14._____	31._____
15.	_____	15._____			15._____	32._____
OP. I R1	_____	16._____			16._____	33._____
	OP. H R1				17. H134	34. H134

NAVY/MARINE CORPS WTPT IMA ANSWER SHEET

START	H134 <u>CONTD</u>	H301	H302	H349	I353	H353
FINISH	_____	_____	_____	_____	_____	_____
TIME REQ	_____	_____	_____	_____	_____	_____
# TIME	_____	_____	_____	_____	_____	_____
LAST PERF	_____	_____	_____	_____	_____	_____
35.	1._____	1._____	1._____	1._____	1._____	1._____
36.	2._____	2._____	2._____	2._____	2._____	2._____
37.	3._____	3._____	3._____	3._____	3._____	3._____
38.	4._____	4._____	4._____	4._____	4._____	4._____
39.	5._____	5._____	5._____	5._____	5._____	5._____
40.	6._____	6._____	6._____	6._____	6._____	6._____
41.	7._____	7._____	7._____	7._____	7._____	7._____
42.	8._____	OP. H302	8._____	OP. I353	OP. H353	
43.	9._____		9._____			
44.	10._____			OP. H349		
45.	11._____					
46.	12._____					
OP. H134	13._____					
	OP. H301					

## NAVY/MARINE CORPS WTPT IMA ANSWER SHEET

	I360	H360	I363	I373	H373	H385
START	_____	_____	_____	_____	_____	_____
FINISH	_____	_____	_____	_____	_____	_____
TIME REQ	_____	_____	_____	_____	_____	_____
# TIME	_____	_____	_____	_____	_____	_____
LAST PERF	_____	_____	_____	_____	_____	_____
	1. _____	1. _____	1. _____	1. _____	1. _____	1. _____
	2. _____	2. _____	2. _____	2. _____	2. _____	2. _____
	3. _____	3. _____	3. _____	3. _____	3. _____	3. _____
	4. _____	4. _____	4. _____	4. _____	4. _____	4. _____
	5. _____	5. _____	5. _____	5. _____	5. _____	5. _____
	6. _____	6. _____	6. _____	6. _____	6. _____	6. _____
	7. _____	OP. H360	7. _____	7. _____	7. _____	6. _____
	8. _____		8. _____	8. _____	8. _____	8. _____
	9. _____		9. _____	9. _____	9. _____	9. _____
	OP. I360		OP. H363	10. _____	10. _____	10. _____
				11. _____	OP. H373	11. _____
					OP. I373	OP. H385

NAVY/MARINE CORPS WTPT IMA ANSWER SHEET

	H387	I238	I239	I239 <u>CONT</u>	H247
START	_____	_____	_____	_____	_____
FINISH	_____	_____	_____	_____	_____
TIME REQ	_____	_____	_____	_____	_____
# TIME	_____	_____	_____	_____	_____
LAST PERF	_____	_____	_____	_____	_____
	1. _____	1. _____	1. _____	18. _____	1. _____
	2. _____	2. _____	2. _____	19. _____	2. _____
	3. _____	3. _____	3. _____	20. _____	3. _____
	4. _____	4. _____	4. _____	21. _____	4. _____
	5. _____	5. _____	5. _____	OP. _____	5. _____
	6. _____	6. _____	6. _____	I239	
	7. _____	7. _____	7. _____		6. _____
OP. _____ H387	8. _____	8. _____			8. _____
	9. _____	9. _____			9. _____
	10. _____	10. _____			10. _____
OP. _____ H238	11. _____				11. _____
	12. _____				12. _____
	13. _____				13. _____
	14. _____				14. _____
	15. _____				15. _____
	16. _____			OP. _____	
	17. _____			I247	

NAVY/MARINE CORPS WTPT OMA ANSWER SHEET

Last Name,		First		MI	SSN	
Date	Base	Branch N/MC			Administrator	
		I R1	H R1	I R2	I134	H134
START		—	—	—	—	<u>H134</u> <u>CONT</u>
FINISH		—	—	—	—	—
TIME REQ		—	—	—	—	—
# TIME		—	—	—	—	—
LAST PERF		—	—	—	—	—
	1.	1.	1.	1.	1.	18.
	2.	2.	2.	2.	2.	19.
	3.	3.	3.	3.	3.	20.
	4.	4.	4.	4.	4.	21.
	5.	5.	5.	5.	5.	22.
	6.	6.	6.	6.	6.	23.
	7.	7.	7.	7.	7.	24.
	8.	8.	8.	8.	8.	25.
	9.	9.	9.	9.	9.	26.
	10.	10.	10.	OP. <u>I134</u>	10.	27.
	11.	11.	OP. <u>I R2</u>		11.	28.
	12.	12.			12.	29.
	13.	13.			13.	30.
	14.	14.			14.	31.
	15.	15.			15.	32.
OP. <u>I R1</u>		16.			16.	33.
		OP. <u>H R1</u>			17. <u>H134</u>	34. <u>H134</u>

NAVY/MARINE CORPS WTPT OMA ANSWER SHEET

START	H134 <u>CONTD</u>	H301	H302	H349	I353	H353
FINISH	_____	_____	_____	_____	_____	_____
TIME REQ	_____	_____	_____	_____	_____	_____
# TIME	_____	_____	_____	_____	_____	_____
LAST PERF	_____	_____	_____	_____	_____	_____
35.	1.	1.	1.	1.	1.	1.
36.	2.	2.	2.	2.	2.	2.
37.	3.	3.	3.	3.	3.	3.
38.	4.	4.	4.	4.	4.	4.
39.	5.	5.	5.	5.	5.	5.
40.	6.	6.	6.	6.	6.	6.
41.	7.	7.	7.	7.	7.	7.
42.	8.	OP. H302	8.	OP. I353	OP. H353	
43.	9.		9.			
44.	10.			OP. H349		
45.	11.					
46.	12.					
OP. H134	13.					
	OP. H301					

NAVY/MARINE CORPS WTPT OMA ANSWER SHEET

	I360	H360	I363	I373	H373	H385
START	_____	_____	_____	_____	_____	_____
FINISH	_____	_____	_____	_____	_____	_____
TIME REQ	_____	_____	_____	_____	_____	_____
# TIME	_____	_____	_____	_____	_____	_____
LAST PERF	_____	_____	_____	_____	_____	_____
	1. _____	1. _____	1. _____	1. _____	1. _____	1. _____
	2. _____	2. _____	2. _____	2. _____	2. _____	2. _____
	3. _____	3. _____	3. _____	3. _____	3. _____	3. _____
	4. _____	4. _____	4. _____	4. _____	4. _____	4. _____
	5. _____	5. _____	5. _____	5. _____	5. _____	5. _____
	6. _____	6. _____	6. _____	6. _____	6. _____	6. _____
	7. _____	OP. H360	7. _____	7. _____	7. _____	6. _____
	8. _____		8. _____	8. _____	8. _____	8. _____
	9. _____		9. _____	9. _____	9. _____	9. _____
	OP. I360	OP. H363	10. _____	10. _____	10. _____	
			11. _____	OP. H373	11. _____	
			OP. I373		OP. H385	

## NAVY/MARINE CORPS WTPT OMA ANSWER SHEET

	H387	I319	I325	I351
START	_____	_____	_____	_____
FINISH	_____	_____	_____	_____
TIME REQ	_____	_____	_____	_____
# TIME	_____	_____	_____	_____
LAST PERF	_____	_____	_____	_____
1.	_____	1._____	1._____	1._____
2.	_____	2._____	2._____	2._____
3.	_____	3._____	3._____	3._____
4.	_____	4._____	4._____	4._____
5.	_____	5._____	5._____	5._____
6.	_____	6._____	6._____	6._____
7.	_____	OP._____	7._____	7._____
OP._____	H387	I319	8._____	8._____
			9._____	9._____
			10._____	10._____
			11._____	11._____
OP._____	I325		12._____	
			13._____	
			14._____	
			15._____	
OP._____	I351			

**APPENDIX H**  
**WALK THROUGH PERFORMANCE TESTING**  
**FOR**  
**NAVY/MARINE CORPS J-79 JET ENGINE MECHANICS**  
**AT THE**  
**INTERMEDIATE MAINTENCE ACTIVITY (IMA)**

## Instructions to the Evaluator

This booklet contains WTPT items for first enlistment Navy/Marine Corps jet engine mechanics who work on the J-79 engine at an intermediate maintenance activity (IMA).

Administer the test items according to the schedule established by the evaluation team leader at each base. Follow the general instructions outlined in the WTPT Administration Manual for Navy/Marine Corps Jet Engine Mechanics and the unique instructions specified on each test item selected to be evaluated.

GENERAL INSTRUCTIONS FOR THE (IMA) INCUMBENT

YOU HAVE BEEN SELECTED TO PARTICIPATE IN A NAVY/MARINE CORPS RESEARCH PROJECT TO EVALUATE THE ENLISTED SELECTION PROCESS. YOU WILL PARTICIPATE IN A SERIES OF TESTS THAT WILL MEASURE YOUR PROFICIENCY AND KNOWLEDGE OF A SET OF TASKS. THE TESTING WILL TAKE APPROXIMATELY SIX HOURS AND WILL BE DIVIDED INTO TWO THREE HOUR SESSIONS. IF YOU ARE UNABLE TO COMPLETE BOTH SESSIONS TODAY, YOU MAY BE ASKED TO RETURN ON ANOTHER DAY.

I WILL ASK YOU QUESTIONS ABOUT SOME TASKS AND ASK YOU TO PERFORM SOME TASKS. I WILL TELL YOU WHICH PUBLICATIONS TO USE WHEN PERFORMING THESE TASKS, BUT YOU MUST DECIDE WHAT TOOLS AND MATERIALS TO USE. I WILL GIVE YOU TIME TO GATHER THE TOOLS AND MATERIALS BEFORE YOU BEGIN EACH TASK.

SOME TASKS REQUIRE MORE TIME TO COMPLETE THAN WE HAVE TIME TO EVALUATE, SO DO NOT BE ALARMED IF I ASK YOU TO STOP A TASK BEFORE YOU HAVE FINISHED. I WILL NOT EVALUATE EVERY STEP OF EVERY TASK. FOLLOW GENERAL MAINTENANCE PROCEDURES. TORQUE ALL NUTS AND BOLTS AS SPECIFIED IN THE PUB UNLESS I TELL YOU NOT TO TORQUE THEM.

ALL OF YOUR SCORES WILL BE KEPT CONFIDENTIAL. WHILE I WILL BE EVALUATING YOUR PERFORMANCE, IT IS IMPORTANT FOR YOU TO UNDERSTAND THAT WE ARE INVESTIGATING THE ENLISTED SELECTION PROCESS AND NOT YOU PERSONALLY. YOUR SCORES WILL NOT GO IN YOUR RECORDS AND THEY WILL NOT BE REVEALED TO YOUR SUPERIORS. YOUR SCORES CANNOT AFFECT YOUR RATINGS. HOWEVER, I DO ASK THAT YOU DO YOUR BEST WHEN PERFORMING THESE TASKS.

I WILL ONLY BE ABLE TO ANSWER QUESTIONS DEALING WITH THE ADMINISTRATION OF THESE TESTS. PLEASE DO NOT ASK ANY QUESTIONS ABOUT THE TASKS UNLESS THE QUESTIONS RELATE TO THE TEST ADMINISTRATION. PLEASE DO NOT TELL OTHERS WHAT QUESTIONS YOU ARE BEING ASKED SO THE TESTS WILL BE THE SAME FOR EVERYONE WHO TAKES THEM.

THESE TESTS ARE FOR J-79 IMA PERSONNEL. ARE YOU IN THIS GROUP?

BEFORE WE BEGIN, PLEASE GET A TOOL BOX THAT YOU CAN USE DURING THE ENTIRE SESSION. DO YOU HAVE ANY QUESTIONS?

NAME OF INCUMBENT \_\_\_\_\_ NAME \_\_\_\_\_

SSN \_\_\_\_\_ SSN \_\_\_\_\_

ADMINISTRATOR'S ID \_\_\_\_\_ RATER \_\_\_\_\_

DATE \_\_\_\_\_ DATE \_\_\_\_\_

BASE \_\_\_\_\_ BASE \_\_\_\_\_

BRANCH OF SERVICE: NAVY \_\_\_\_\_ MARINE CORPS \_\_\_\_\_

## TABLE OF CONTENTS

<u>TASK #</u>	<u>TASK STATEMENT AND ENGINE CONFIGURATION</u>	<u>PAGE</u>
<b>PHASE I</b>		
R1 I	INSTALL PRESSURIZING & DRAIN (P&D) VALVES	I-1
R1 H	INSTALL PRESSURIZING & DRAIN (P&D) VALVES Engine Configuration: P&D Valve off the engine.	I-4
R2 I	INSTALL AFTERBURNER FUEL PRESSURIZING VALVES	I-8
134 I	COMPLETE FORMS (VIDS/MAF)	I-11
134 H	COMPLETE FORMS (VIDS/MAF) Engine Configuration: N/A	I-14
301 H	INSPECT ENGINE PLUMBING (FUEL LINES) Engine Configuration: N/A	I-20
302 H	INSPECT A 3000 SERIES TRAILER FOR SERVICEABILITY Engine Configuration: N/A	I-23
349 H	INSTALL BLEED AIR SYSTEM COMPONENTS (MANIFOLD COLLECTOR BOWLS) Engine Configuration: The modified BLC system with the BLC ducts, the BLC support, and the short duct are installed on the engine. The cap and attachment hardware are removed from the manifold collector bowl. The manifold collector bowl is off the engine.	I-26
353 I	INSTALL FORWARD TOP ANTI-ICING DUCTS	I-29
353 H	INSTALL FORWARD TOP ANTI-ICING DUCTS Engine Configuration: The two engine forward side mounts are off the engine and the adapters are installed. The middle and rear anti-icing ducts and the valve assembly are on the engine. The assembled front anti-icing duct and the first stage manifold tubes are off the engine.	I-32

50

TABLE OF CONTENTS (Cont'd)

<u>TASK #</u>	<u>TASK STATEMENT AND ENGINE CONFIGURATION</u>	<u>PAGE</u>
360 I	INSTALL AN EXHAUST GAS TEMPERATURE THERMOCOUPLE HARNESS	I-35
360 H	INSTALL AN EXHAUST GAS TEMPERATURE THERMOCOUPLE HARNESS Engine Configuration: Lines, feed-back and compensating cables, and harness are removed.	I-38
363 H	INSTALL IGNITION EXCITER BOXES Engine Configuration: Input/output leads installed. Exciter box is off the engine and discharged. Mounting studs and main electrical harness are installed.	I-41
373 I	INSTALL LOCKWIRE	I-44
373 H	INSTALL LOCKWIRE Engine Configuration: Exciter box is on the engine.	I-47
385 H	RIG AFTERBURNER NOZZLE ASSEMBLIES Engine Configuration: The afterburner is completely installed with the nozzles closed to the rigging condition (22 5/16 plus or minus 1/16") using a nozzle actuator pressurizer. The jam nuts on the nozzle feedback cable and the temperature compensatory cable are loose (backed off to eliminate tension on the cables).	I-50
387 I	RIG INLET GUIDE VANE SYSTEMS	I-53
 PHASE II		
238 I	INSTALL NUMBER THREE (3) BEARINGS	II-1
239 I	INSTALL FORWARD AND REAR NUMBER THREE OIL (CARBON) AND AIR SEALS	II-4
247 I	REMOVE ENGINE TURBINE ROTOR PACKAGES	II-8

Objective: To evaluate the incumbent's knowledge concerning the installation of pressurizing and drain (P&D) valves.

Estimated Time: 10M Start: \_\_\_\_\_ Finish: \_\_\_\_\_ Time Req: \_\_\_\_\_

Time Limit: 12M #Times Performed: \_\_\_\_\_ Last Performed: \_\_\_\_\_

Tools and Equipment: PUB: NAVAIR 02B-105AGD-6-1 WP 119 00, P&D Valve, Tool Box.

Background Information: N/A

Engine Configuration: N/A

Instructions:

Administer in the shop by the engine. The incumbent may NOT use the PUB. Hand the incumbent the P&D valve before you read the instructions.

SAY TO THE INCUMBENT

WITHOUT THE USE OF THE PUB, TELL ME STEP BY STEP HOW YOU SHOULD INSTALL THE P&D VALVE. INCLUDE ALL SAFETY PRECAUTIONS THAT YOU SHOULD FOLLOW. YOU MAY USE THE ENGINE, THE P&D VALVE, AND ANY TOOLS THAT YOU WOULD NORMALLY USE TO SHOW ME HOW THE VALVE SHOULD BE INSTALLED.

Performed or Answered Correctly	Yes	No
---------------------------------	-----	----

Did the incumbent say he/she would:

1. Lubricate the O-rings and seal with petrolatum prior to installation?	—	—
2. Install the large elbows, jam nuts and O-rings in the large outlet ports and rear port?	—	—
3. Leave the jam nuts finger tight until after the fuel manifolds were installed?	—	—

Performed or Answered Correctly	Yes	No
Did the incumbent say he/she would:		
4. Install the clamp bracket pointing forward under the head of the outer lower bolt?	—	—
5. Torque the four bolts holding the valve to the rear of the main oil cooler?	—	—
6. Install the two bolts (securing the valve to the rear mounting bracket) with heads facing forward?	—	—
7. Install the two O-rings, drain tube and connector bolt in the drain port in the correct order (O-ring, drain tube, O-ring, bolt)?	—	—
8. Torque the connector bolt?	—	—
9. Make torquing adjustments if an adapter was used?	—	—
10. Install the two jam nuts and manifold fitting finger tight before torquing to ensure a proper fit with no kinks?	—	—
11. Torque the two jam nuts holding the two large elbows?	—	—
12. Torque the manifold fitting?	—	—
13. Install the rear elbow to the P&D valve before installing the reference pressure fuel manifold (inlet)?	—	—
14. Torque the jam nut holding the rear elbow?	—	—
15. Torque the referencing pressure fuel manifold nut?	—	—

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's ability to install pressurizing and drain (P&D) valves.

Estimated Time: 25M Start: \_\_\_\_\_ Finish: \_\_\_\_\_ Time Req: \_\_\_\_\_

Time Limit: 35M #Times Performed: \_\_\_\_\_ Last Performed: \_\_\_\_\_

Tools and Equipment: PUB: NAVAIR 02B-105AGD-6-1 WP 119 00, WP-032, Tool Box, 0-150 inch-pound Torque Wrench, 0-600 inch-pound Torque Wrench, 0-150 foot-pound Torque Wrench, Torque Wrench Adapter, Petrolatum, Pressurizing and Drain Valve, 3 (J221P04) O-rings, 2 (J221P910) O-rings, J219P05A Gasket

Background Information: The correct torque wrench adapter must be determined at each testing site depending on the torque wrenches available.

Engine Configuration: Main oil cooler, compressor rear frame bracket, and fuel manifold and reference pressure lines installed.

Component Configuration: Elbows, jam nuts, and O-rings off P&D Valve.

Instructions:

Administer in the shop by the engine. The incumbent may use the PUB. Evaluate incumbent's ability to identify PUBS with this task.

SAY TO THE INCUMBENT

GET THE PUB USED TO INSTALL A PRESSURIZING AND DRAIN (P&D) VALVE AND THE PUB FOR GENERAL TORQUING PROCEDURES. SHOW ME THE APPROPRIATE PAGES IN BOTH PUBS THEN INSTALL THE P&D VALVE USING THE PROCEDURES FROM BOTH PUBS AS A GUIDE. FOLLOW GENERAL MAINTENANCE PROCEDURES AT ALL TIMES. TELL ME IF YOU PLAN TO DEVIATE FROM THE PUBS. DO NOT INSTALL ANY LOCKWIRE BUT TELL ME WHEN AND WHERE YOU SHOULD INSTALL THE LOCKWIRE.

Performed or Answered Correctly

Yes No

Did the incumbent:

1. Identify the two Pubs within 10 minutes? \_\_\_\_\_
2. Lubricate the O-rings and seal with petrolatum prior to installation? \_\_\_\_\_

Performed or Answered Correctly

Yes No

Did the incumbent:

3. Install elbows, jam nuts, and O-rings in the large outlet and rear ports?
4. Leave the jam nuts finger tight until after the fuel manifolds were installed?
5. Install the clamp bracket pointing forward under the head of the outer bolt?
6. Torque the four bolts holding the valve to the rear of the main oil cooler 55-70 inch-pounds?
7. Install the two bolts (securing the valve to the rear mounting bracket) with heads facing forward?
8. Install the two O-rings, drain tube and connector bolt in the drain port in the correct order (O-ring, drain tube, O-ring connector bolt)?
9. Torque the connector bolt 135 to 150 inch-pounds (must make adjustments if adapter is used)?
10. Install the two jam nuts and manifold fitting finger tight before torquing to ensure a proper fit with no kinks?
11. Torque the two jam nuts holding the two large elbows 360 to 400 inch-pounds (must make adjustments if adapter is used)?
12. Torque the manifold fitting 54-64 foot-pounds (must make adjustments if adapter is used)?
13. Install the rear elbow to the P&D valve before installing the reference pressure fuel manifold (inlet)?

Performed or Answered Correctly

Yes      No

Did the incumbent:

14. Torque the jam nut holding the rear elbow 135 to 150 inch-pounds?
15. Torque the referencing pressure fuel manifold nut 135 to 150 inch-pounds?
16. Use the correct tools?

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's knowledge concerning the installation of afterburner fuel pressurizing valves.

Estimated Time: Start: Finish: Time Req:

Time Limit: #Times Performed: Last Performed:

Tools and Equipment: PUB: NAVAIR 02B-105AGD-6-1 WP 126 00

Background Information: N/A

Engine Configuration: N/A

Instructions:

Administer in the shop by an engine.

SAY TO THE INCUMBENT

WITHOUT THE USE OF THE PUB, TELL ME STEP BY STEP HOW YOU SHOULD INSTALL THE AFTERBURNER PRESSURIZING VALVE. BE SURE TO INCLUDE ALL SAFETY PRECAUTIONS THAT YOU SHOULD FOLLOW. YOU MAY USE THE ENGINE, THE VALVE, AND ANY TOOLS THAT YOU WOULD NORMALLY USE TO SHOW ME HOW THE VALVE SHOULD BE INSTALLED.

Performed or Answered Correctly	Yes	No
Did the incumbent say he/she would:		
1. Install the valve to the mounting bracket using two bolts, six washers, and two nuts?	—	—
2. Leave the mounting bolts finger tight until after all the connections are made?	—	—
3. Ensure that the valve is in the correct position?	—	—
4. Install the afterburner core fuel and annulus fuel supply lines?	—	—
5. Hold the valve with a support wrench when torquing the supply tubes?	—	—
6. Torque the tubes at the valve?	—	—
7. Torque the tubes at the connectors?	—	—

Performed or Answered Correctly	Yes	No
Did the incumbent say he/she would:		
8. Tighten the three tube clamp groups?	—	—
9. Hold each of the four valve outlet connectors with a wrench while torquing the four outlet tube B-nuts?	—	—
10. Torque the valve mounting bolts?	—	—

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's knowledge concerning the completion of the VIDS/MAF maintenance form.

Estimated Time: 15M Start: \_\_\_\_\_ Finish: \_\_\_\_\_ Time Req: \_\_\_\_\_

Time Limit: 20M #Times Performed: \_\_\_\_\_ Last Performed: \_\_\_\_\_

Tools and Equipment: PUB: OPNAV INST 4790.2C, Volume II, pages 11-47 and Work Unit Code.

Background Information: N/A

Engine Configuration: N/A

Instructions:

Administer in a quiet place. The incumbent may use the PUB. Hand the incumbent a blank VIDS/MAF form.

SAY TO THE INCUMBENT

HERE IS A VIDS/MAF. I WILL GIVE YOU TIME TO EXAMINE THE FORM THEN I WILL ASK YOU SOME QUESTIONS. YOU WILL NOT BE ALLOWED TO USE THE PUB WHEN ANSWERING THESE QUESTIONS.

Performed or Answered Correctly	Yes	No
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HAND THE INCUMBENT THE VIDS/MAF

1. What is the purpose of the VIDS/MAF? \_\_\_\_\_

ANSWER:

Process reports and controls (To follow the parts through the repair process).

2. Under what condition would a supply document number entry be made in Block 49? \_\_\_\_\_

ANSWER:

When a demand has been placed on the supply system for a like item as a replacement.

3. When working in the power plant, in which block do you note that you have repaired an item by replacing a part? \_\_\_\_\_

ANSWER:

Corrective Action Block

4. What is the purpose of the job control number? \_\_\_\_\_

ANSWER:

To control and justify the maintenance jobs.

5. What do the numbers in block A11 represent? \_\_\_\_\_

ANSWER:

The Julian date.

6. What does the work center entry in block A19 tell us? \_\_\_\_\_

ANSWER:

Where the individual who is doing the work is assigned. Not necessarily where the work is being performed.

7. What entry on the form identifies the part on which the work is being performed?  
(Only one answer required for credit.)

ANSWER:

- a. Removed old item - E23
- b. Discrepancy
- c. Work Unit Code - A22

8. Who completes the "inspected by" block?  
(Only one answer required.)

ANSWER:

The Collateral Duty Inspector (CDI) or the Quality Assurance Inspector.

9. How can you tell that a part has been ordered?

ANSWER:

By looking at the DOC No. block. If a part has been ordered, the DOC No. block will be filled in with the supply document number.

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's ability to complete the VIDS/MAF maintenance form.

Estimated Time: 25M Start: \_\_\_\_\_ Finish: \_\_\_\_\_ Time Req: \_\_\_\_\_

Time Limit: 30M #Times Performed: \_\_\_\_\_ Last Performed: \_\_\_\_\_

Tools and Equipment: PUB: OPNAV INST 4790.2C, Volume III,  
(pages 16-207) and Work Unit Code.

Background Information: N/A

Engine Configuration: N/A

Instructions:

Administer in a quiet place. The incumbent may use the PUB. Give the incumbent the information card and blank VIDS/MAF form.

SAY TO THE INCUMBENT

THIS TEST WAS DEVELOPED USING PUB OPNAV INST 4790.2C, VOLUME III. USING THIS PUB AND THE WORK UNIT CODE MANUAL AS A GUIDE, COMPLETE THIS VIDS/MAF ACCORDING TO THE INFORMATION ON THIS CARD.

BACKGROUND INFORMATION SHEET TO ENABLE THE J-79 IMA EXAMINEE  
TO COMPLETE THE VIDS/MAF

A fodded engine was turned into IMA for repair. During the acceptance inspection the afterburner fuel pump was noted, "Static leaking beyond limits." Using the following information, fill in all the appropriate blanks on the VIDS/MAF to show that the afterburner fuel pump has been installed but that no installation inspection has been made. Ensure that all appropriate supply and record data is entered on the VIDS/MAF.

You are an I level maintenance person.  
Jack Smith made SRC card log and record entries.  
You performed the work by yourself.  
The discrepancy is "Fuel pump leaking beyond limits."  
The type of equipment code is JRUC.  
The engine serial number is 448085.  
The engine time is 3237.  
The work unit code is 23 A6P00.  
The type of maintenance is second degree repair.  
Your work center is 41E.  
The job control number is RDX 227 612-01.  
You started the job at 0730 on 15 August 1985.  
Your tool box number is 2.  
The manufacturer's code for ABFP is 99167.  
The serial number of the old A/B pump is 60.  
The old ABFP number is 512 D 809P12.  
The operating time on the old ABFP is 1793.  
The reference is NAVAIR 02B-105AGFD-4, Fig 36, Pg 14, Item 33.  
The project code is BKO.  
The priority is 3.  
The document number is 5227 16 16.  
The serial number of the new A/B pump is 70.  
The new ABFP has one hour time on it.  
Your organization is RDX.  
It took you two hours to remove the old pump and three hours to install the new pump.  
You went to supply at 0930 and it took you 15 minutes to get the ABFP.

Performed or Answered Correctly

Yes      No

Did the IMA examinee complete the form as follows:

	<u>Block</u>	<u>Entry</u>		
1.	LOGS/REC	XX Jack Smith	—	—

ACCUMULATED WORK HOURS

2.	NAME/SHIFT	Examinee's Name	—	—
3.	TOOL BOX	2	—	—
4.	DATE	5227	—	—
5.	MAN HOURS (FIRST LINE)	2	—	—
6.	ELAPSED TIME (FIRST LINE)	2	—	—
7.	MAN HOURS (SECOND LINE)	3	—	—
8.	ELAPSED TIME (SECOND LINE)	3	—	—
9.	REFERENCE	NA 02B-105AGD-4 FIG 36, PG 14, IT33	—	—

LINE ONE

10.	MFGR (14)	99167	—	—
11.	PART # (19)	512 D809P12	—	—
12.	REF SYM (34)	PUMP	—	—
13.	QTY (41)	01	—	—
14.	PROJ	BKO	—	—
15.	PRI (43)	03	—	—
16.	REQ NO (49)	1616	—	—

Phase I J-79  
IMA Answer Sheet

Hands-On Task 134

Performed or Answered Correctly Yes No

FOLD

17. WORK UNIT CODE (A22)	23A6P00	—	—
18. ACTION ORG (A29)	RDX	—	—
19. TRANS (A32)	23	—	—
20. MAINT/L (A34)	2	—	—
21. ACT TAKEN (A35)	R	—	—
22. MAL CODE (A36)	381	—	—
23. ITEMS/P (39)	01	—	—
24. MAN HOURS (A41)	005/0	—	—
25. ELAPSED M/T (A45)	05/0	—	—
26. TYPE EQUIP (A48)	JRUC	—	—
27. BU/SR # (A52)	448085	—	—
28. DISCD (A58)	W	—	—
29. T/M (A59)	2	—	—

REPAIR CYCLE

30. DATE (B08)	5227	—	—
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REMOVED OLD ITEM

31. MFGR (E08)	99167	—	—
32. SERIAL NUMBER (E13)	60	—	—
33. PART # (E23)	512 D809P12	—	—
34. DATE REMOVED (E38)	5227	—	—
35. TYPE/CYCLES (E42)	C1793	—	—

Performed or Answered Correctly		Yes	No
<b>INSTALLED/NEW ITEM</b>			
36. MFGR (G08)	99167	—	—
37. SERIAL # (G13)	70	—	—
38. PART # (G23)	512 D809P12	—	—
39. TIME/CYCLES (G38)	C0001	—	—
<b>JOB CONTROL NUMBER</b>			
40. ORG (A08)	RDX	—	—
41. DAY (A11)	227	—	—
42. SER (A14)	612	—	—
43. WORK CENTER (A19)	41E	—	—
44. DISCREPANCY	A/B Fuel Pump leaking beyond limits	—	—
45. CORRECTIVE ACTION	Removed & Replaced A/B Fuel Pump	—	—
46. CORRECTED BY	Examinee's Name/Rank	—	—

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's ability to inspect engine plumbing.

Estimated Time: 15M Start: \_\_\_\_\_ Finish: \_\_\_\_\_ Time Req: \_\_\_\_\_

Time Limit: 20M #Times Performed: \_\_\_\_\_ Last Performed: \_\_\_\_\_

Tools and Equipment: PUB: NAVAIR 02B-105AGD-6-1 WP 039 00

Background Information: N/A

Engine Configuration: N/A

Instructions:

Administer in the shop in a quiet place. The incumbent may use the Pub.

SAY TO THE INCUMBENT

HERE IS A PIECE OF FLEXIBLE FUEL LINE. EXAMINE IT CAREFULLY. IDENTIFY ALL DISCREPANCIES AND TELL ME IF THE DISCREPANCIES ARE IN OR OUT OF LIMITS ACCORDING TO NAVAIR 02B-105AGD-6-1 WP 039 00.

Performed or Answered Correctly

Yes No

Did the incumbent:

1. Identify the defect which was 1 inch from the 90 degree fitting? \_\_\_\_\_

Say that the defect which was 1 inch from the 90 degree fitting was:

2. within limits? \_\_\_\_\_

3. within limits because there were no broken braid plaits? \_\_\_\_\_

4. Identify the defect which was 1 inch from the 45 degree fitting? \_\_\_\_\_

Performed or Answered Correctly

Yes No

Say the defect which was 1 inch from  
the 45 degree fitting was:

5. out of limits? \_\_\_\_\_

6. out of limits because there were more  
than three broken wires on the plait? \_\_\_\_\_

7. Identify the defect which was 4 inches  
from the 45 degree fitting? \_\_\_\_\_

Say that the defect which was 4 inches  
from the 45 degree fitting was:

8. within limits? \_\_\_\_\_

9. within limits because there were three  
or more broken wires on the plait? \_\_\_\_\_

10. Identify the defect which was 5 inches  
from the 45 degree fitting? \_\_\_\_\_

Say that the defect which was 5 inches  
from the 45 degree fitting was:

11. out of limits? \_\_\_\_\_

12. out of limits because the entire plait  
of five wires was broken? \_\_\_\_\_

13. Identify the foil plug in the 45  
degree fitting? \_\_\_\_\_

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's ability to inspect a 3000 series trailer for serviceability.

Estimated Time: 10M Start: \_\_\_\_\_ Finish: \_\_\_\_\_ Time Req: \_\_\_\_\_

Time Limit: 15M #Times Performed: \_\_\_\_\_ Last Performed: \_\_\_\_\_

Tools and Equipment: PUB: NAVAIR 19-600-76-6-4 Card #1

Background Information: A complete inspection of a trailer would be performed by an accessory incumbent. IMA and OMA individuals perform serviceability inspections. One person task.

Engine Configuration: N/A

Instructions:

Administer in the shop by either a 3000 or 3010 trailer. The incumbent may use the PUB. The inspection steps may be performed in any order.

SAY TO THE INCUMBENT

USING PUB NAVAIR 19-600-76-6-4 CARD #1 AS A GUIDE, PERFORM A USER INSPECTION ON THIS TRAILER. PLEASE DEMONSTRATE WHAT YOU WOULD DO TO PERFORM THE INSPECTION AND TELL ME WHAT VISUAL INSPECTION YOU WOULD MAKE.

Performed or Answered Correctly	Yes	No
Did the incumbent inspect for:		
1. A secure tow bar?	—	—
2. Working brakes?	—	—
3. Serviceability of tires (cuts, inflation, etc)?	—	—
4. Secure connecting pin?	—	—
5. Operational stop pins (4)?	—	—

Performed or Answered Correctly	Yes	No
6. Chips in rails?	—	—
7. Frayed wires on the lockpins?	—	—

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's ability to install J-79 engine bleed air system components (manifold collector bowls).

Estimated Time: 30M Start: \_\_\_\_\_ Finish: \_\_\_\_\_ Time Req: \_\_\_\_\_

Time Limit: 45M #Times Performed: \_\_\_\_\_ Last Performed: \_\_\_\_\_

Tools and Equipment: PUB: NAVAIR 01-245FDD-2-3-5, Pg 3-46, Tool Box, Petrolatum or Tape, 0-150 inch-pound Torque Wrench, 0-300 inch-pound Torque Wrench, one 50887-550S Conoseal, one MAO 06-005 Gasket.

Background Information: Evaluate on modified bleed air system.

Engine Configuration: The modified BLC system with the BLC ducts, the BLC support, and the short duct are installed on the engine. The cap and attachment hardware are removed from the manifold collector bowl. The manifold collector bowl is off the engine. Do NOT remove the bracket assembly from the engine (remove six o'clock bolt).

Instructions:

Administer in the shop. The incumbent may use the PUB. Hold the rig pin in while the incumbent tightens the rear end jam nuts. Show the incumbent the manifold collector bowl to ensure that he/she understands what component is to be installed.

SAY TO THE INCUMBENT

INSTALL THE BLEED AIR SYSTEM MANIFOLD COLLECTOR BOWL USING PUB NAVAIR 01-245FDD-2-3-5, PG 3-46 AS A GUIDE. FOLLOW GENERAL MAINTENANCE PROCEDURES AT ALL TIMES. TELL ME IF YOU PLAN TO DEVIATE FROM THE PUB.

Performed or Answered Correctly

Yes No

Did the incumbent:

1. Ensure that the conoseal gasket was installed with the gasket angle oriented with the flange face of the duct? \_\_\_\_\_
2. Position the collector coupling (V-Band clamp) split line at the 3 or 9 o'clock position with the bolt facing down? \_\_\_\_\_

Performed or Answered Correctly	Yes	No
3. Install all gaskets and ducts in their proper position according to the PUB, figure entitled Compressor Bleed Air Manifold Installation?	—	—
4. Install two nuts on the stub duct (short duct or beer can) clamp?	—	—
5. Torque all nuts correctly?	Yes	No
a. Bleed air duct assembly (collector bowl) attachment clamp: 120-140 inch-pounds?	—	—
b. Stub duct (beer can) clamp safety nut: 75-80 inch-pounds?	—	—
c. Bracket assembly clamp (coupling) nut: 10-15 inch-pounds?	—	—
6. Properly seat the attachment clamp and the stub duct clamp using a rubber mallet and lightly tapping the clamps?	—	—
7. Install the bowl correctly?	—	—
8. Use the correct tools and materials?	—	—

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's knowledge concerning the installation of J-79 engine forward top anti-icing ducts.

Estimated Time: 10M Start: \_\_\_\_\_ Finish: \_\_\_\_\_ Time Req: \_\_\_\_\_

Time Limit: 12M #Times Performed: \_\_\_\_\_ Last Performed: \_\_\_\_\_

Tools and Equipment: PUB: NAVAIR 02B-105AGD-6-1 WP 145 00, Tool Box, 0-150 inch-pound Torque Wrench, 0-300 inch-pound Torque Wrench, 750-1600 inch-pound Torque Wrench, 2 1/2 inch Crow's Foot, Forward Top Anti-Icing Ducts.

Background Information: N/A

Engine Configuration: N/A

Instructions:

Administer in the shop by the engine. The incumbent may NOT use the PUB.

SAY TO THE INCUMBENT

WITHOUT THE USE OF THE PUB, TELL ME STEP BY STEP HOW YOU SHOULD INSTALL THE FORWARD ANTI-ICING DUCT. BE SURE TO INCLUDE ALL SAFETY PRECAUTIONS THAT YOU SHOULD FOLLOW. YOU MAY USE THE ENGINE, THE ANTI-ICING DUCT, AND ANY TOOLS THAT YOU WOULD NORMALLY USE TO SHOW ME HOW THE DUCT SHOULD BE INSTALLED.

Performed or Answered Correctly	Yes	No
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Did the incumbent say he/she would:

1. Ensure that all covers, plugs, and caps were removed before installing the duct?	—	—
2. Leave the forward anti-icing duct and the tube threaded fasteners loose until connecting to the center duct?	—	—
3. Place the gaskets between the front pads and the air ducts?	—	—
4. Secure the air ducts with four bolts and washers on each pad?	—	—

Performed or Answered Correctly	Yes	No
5. Ensure that the parts were properly aligned and then torqued the bolts and the nuts in the following order:	—	—
a. Forward duct to frame?	—	—
b. Forward duct to center duct?	—	—
6. Attempt to retrieve any foreign objects that were dropped into the engine?	—	—

ASK THE INCUMBENT:

7. Why do you leave all the bolts loose until after you connect the tube to the center duct?

ANSWER:

So the final adjustment can be made for a proper fit.

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's ability to install J-79 engine forward top anti-icing ducts.

Estimated Time: 30M Start: Finish: Time Req:

Time Limit: 35M #Times Performed: Last Performed:

Tools and Equipment: PUB: NAVAIR 02B-105AGD-6-1 WP 145 00, page 2, Tool Box, 0-150 inch-pound Torque Wrench, 0-300 inch-pound Torque Wrench, 750-1600 inch-pound Torque Wrench, 2 1/2 inch Crow's Foot. Adapter 1C2771-63 (FS#4920-703-9504) Forward Frame to Horizontal Rail Support.

Background Information: One person task.

Engine Configuration: The two engine forward side mounts are off the engine and the adapters are installed. The middle and rear anti-icing ducts and the valve assembly are on the engine. The assembled front anti-icing duct and the first stage manifold tubes are off the engine.

Instructions: Administer in the shop. The incumbent may use the PUB.

SAY TO THE INCUMBENT

INSTALL THE FORWARD TOP ANTI-ICING DUCT ON THE ENGINE USING PUB NAVAIR 02B-105AGD-6-1 WP 145 00 AS A GUIDE. FOLLOW GENERAL MAINTENANCE PROCEDURES AT ALL TIMES. TELL ME IF YOU PLAN TO DEVIATE FROM THE PUB.

Performed or Answered Correctly	Yes	No
Did the incumbent:		
1. Ensure that all covers, plugs, and caps were removed before installing the duct?	—	—
2. Leave the forward anti-icing duct and the tube threaded fasteners loose until connecting to the center duct?	—	—
3. Place the gaskets between the front pads and the air ducts?	—	—
4. Secure the air ducts with four bolts and washers on each pad?	—	—

Performed or Answered Correctly	Yes	No
5. Ensure that the parts were properly aligned and then torqued the bolts and the nuts in the following order: a. Forward duct to frame? b. Forward duct to center duct?	—	—
6. Attempt to retrieve any foreign objects that were dropped into the engine?	—	—
7. Use the correct tools and materials?	—	—

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's knowledge concerning the installation of a J-79 engine exhaust gas temperature thermocouple harness.

Estimated Time: 10M Start: Finish: Time Req.

Time Limit: 12M #Times Performed: Last Performed:

Tools and Equipment: PUB: NAVAIR 02B-105ADG-6-1 WP 150 00,  
page 4, Tool Box, EGT Thermocouple Harness

Background Information: N/A

Engine Configuration: N/A

Instructions:

Administer in the shop by the engine. The incumbent may NOT use the PUB. Hand the incumbent the thermocouple harness.

SAY TO THE INCUMBENT

WITHOUT THE USE OF THE PUB, TELL ME STEP BY STEP HOW YOU SHOULD INSTALL THE TOP THERMOCOUPLE HARNESS. INCLUDE ALL SAFETY PRECAUTIONS THAT YOU SHOULD FOLLOW. YOU MAY USE THE ENGINE, THE HARNESS, AND ANY TOOLS THAT YOU WOULD NORMALLY USE TO SHOW ME HOW THE HARNESS SHOULD BE INSTALLED.

Performed or Answered Correctly

Yes No

Did the incumbent say he/she would:

1. Ensure that no burrs remained on the threads or mating surface of the turbine frame boss?
2. Ensure that no lubricant ran into the filler material around the thermocouple loops at the end of the probes?
3. Apply a thin coating of lubricant on threaded areas of each thermocouple boss on the turbine frame?
4. Ensure that the harness did not bend causing the inside filament to be broken?

Performed or Answered Correctly	Yes	No
5. Leave all nuts loose until all the probes were installed?	—	—
6. Torque each nut?	—	—
7. Install an aluminum gasket between the top harness and lead?	—	—

ASK THE INCUMBENT:

8. Why is it important that you do not bend the harness when installing it? ANSWER: You could break the chromel and alumel (filament) inside the harness.	—	—
9. Why is it important to properly align the harness when installing it? ANSWER: To prevent damage to the probes and the ferrule.	—	—

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's ability to install a J-79 engine exhaust gas temperature thermocouple harness.

Estimated Time: 20M Start: Finish: Time Req.

Time Limit: 25M #Times Performed: Last Performed:

Tools and Equipment: PUB: NAVAIR 02B-105ADG-6-1 WP 150 00,  
page 4, Tool Box.

Background Information: One or two person task.

Engine Configuration: #3 oil supply line is removed, top (right) harness removed.

Instructions:

Administer in the shop. The incumbent may use the PUB. Have the incumbent install all probes finger tight, then stop the evaluation. Do not have him torque the nuts, apply safety wire, or connect the lead.

SAY TO THE INCUMBENT

INSTALL THE TOP THERMOCOUPLE HARNESS USING PUB NAVAIR 02B-105ADG-6-1 WP 150 00 AS A GUIDE. YOU WILL NOT BE ASKED TO TORQUE THE NUTS OR INSTALL THE LOCKWIRE. FOLLOW GENERAL MAINTENANCE PROCEDURES AT ALL TIMES. TELL ME IF YOU PLAN TO DEVIATE FROM THE PUB.

Performed or Answered Correctly	Yes	No
Did the incumbent:		
1. Ensure that no burrs remained on the threads or mating surface of the turbine frame boss?	—	—
2. Ensure that no lubricant ran into the filler material around the thermocouple loops at the ends of the probes?	—	—
3. Apply a thin coating of lubricant on threaded areas of each thermocouple boss on the turbine frame?	—	—

Performed or Answered Correctly	Yes	No
4. Ensure that the harness did not bend causing the inside filament to be broken?	—	—
5. Leave all nuts loose until all the probes were installed?	—	—
6. Use the correct tools and materials?	—	—

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's ability to install J-79 engine ignition exciter boxes.

Estimated Time: 15M Start: \_\_\_\_\_ Finish: \_\_\_\_\_ Time Req: \_\_\_\_\_

Time Limit: 20M #Times Performed: \_\_\_\_\_ Last Performed: \_\_\_\_\_

Tools and Equipment: PUB: NAVAIR 02B-105AGD-6-1 WP 147 00, 0-150 inch-pound Torque Wrench, Tool Box.

Background Information: The estimated time does not include the installation of the lockwire.

Engine Configuration: Input/output leads installed. Exciter box off the engine and discharged. Mounting studs and main electrical harness are installed.

Instructions:

Administer in the shop. The incumbent may use the PUB. Evaluate the incumbent's performance on Phase I, Task 373 (Install Lockwire) while evaluating the incumbent's performance on the installation of the ignition exciter box. Stop the incumbent before he/she begins installing the lockwire. Go to test item 373 to evaluate the lockwire installation.

SAY TO THE INCUMBE

INSTALL THE IGNITION EXCITER BOX USING PUB NAVAIR 02B-105AGD-6-1 WP 147 00 AS A GUIDE. FOLLOW GENERAL MAINTENANCE PROCEDURES AT ALL TIMES. TELL ME IF YOU PLAN TO DEVIATE FROM THE PUB. DO NOT LOCKWIRE THE INPUT LEADS.

Performed or Answered Correctly	Yes	No
---------------------------------	-----	----

Did the incumbent:

1. Position the main ignition exciter unit correctly? \_\_\_\_\_
2. Install the lock nuts when installing the ignition exciter unit? \_\_\_\_\_
3. Torque the lock nuts 55 to 70 inch-pounds? \_\_\_\_\_
4. Install the main lead to the number 4 liner ignition plug? \_\_\_\_\_

Performed or Answered Correctly	Yes	No
5. Torque the main lead 130 to 150 inch-pounds?	—	—
6. Install the afterburner ignition lead to the afterburner ignition plug?	—	—
7. Torque the afterburner lead 130 to 150 inch-pounds?	—	—
8. Connect the power input lead?	—	—
9. Use the correct tools and materials?	—	—

GO TO TEST ITEM 373 TO EVALUATE LOCKWIRE INSTALLATION.

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's knowledge concerning the installation of lockwire.

Estimated Time: 10M Start: Finish: Time Req:

Time Limit: 12M #Times Performed: Last Performed:

Tools and Equipment: PUB: NAVAIR 02B-105AGD-6-1 WP 033 00

Background Information: N/A

Engine Configuration: N/A

Instructions:

Administer in the shop. The incumbent may NOT use the PUB.

SAY TO THE INCUMBENT

WITHOUT THE USE OF THE PUB, TELL ME STEP BY STEP HOW YOU SHOULD INSTALL LOCKWIRE. BE SURE TO INCLUDE ALL SAFETY PRECAUTIONS THAT YOU SHOULD FOLLOW.

Performed or Answered Correctly	Yes	No
Did the incumbent say he/she would:		
1. Insert the proper gauge wire in accordance with the publication specification?	—	—
2. Ensure that the wire was under proper tension after the wire was completely installed?	—	—
3. Install lockwire so that neither the wire nor its adjacent parts were subject to wear and tear?	—	—
4. Ensure that nicked, kinked, or mutilated lockwire was not installed?	—	—
5. Ensure that the cut off ends did not fall into the engine, or retrieve ends that did fall into the engine?	—	—
6. Leave at least three full twists when cutting lockwire at the end?	—	—

Performed or Answered Correctly

Yes No

7. Bend the remaining tang (end of lockwire) into the part to avoid sharp or projecting ends that might present a safety hazard?

SAY TO THE INCUMBENT:

8. What is the minimum number of twists that you should leave at the end of the installed lockwire?

ANSWER:

Three (3)

9. Why should the end of the safety wire be bent?

ANSWER:

To prevent a safety hazard.

10. What is the maximum number of nuts that you are allowed to have safety wired in a connected series?

ANSWER:

Incumbent may answer 3 or 4.

Three (3)

Four (4)

11. What is the longest length of lockwire that can be used in a series?

ANSWER:

24 inches

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's ability to install lockwire.

Estimated Time: 10M Start: Finish: Time Req:

Time Limit: 12M #Times Performed: Last Performed:

Tools and Equipment: PUB: NAVAIR 02B-105AGD-6-1 WP 147 00,  
Lockwire, Safety Pliers or Duckbill Pliers, Wire Cutters.

Background Information: One person task.

Engine Configuration: Exciter box (main ignition unit) on the engine.

Instructions:

Administer in the shop in conjunction with the installation of the exciter box (Task 363, Phase I). The incumbent may use the PUB. Instructions to the incumbent are included in the 363 instructions. Record the time for the installation of the lockwire separately from the time for the installation of the exciter box.

SAY TO THE INCUMBENT

USING PUB NAVAIR 02B-105AGD-6-1 WP 147 00, INSTALL LOCKWIRE ON THE EXCITER BOX INPUT LEAD.

Performed or Answered Correctly	Yes	No
Did the incumbent:		
1. Insert the proper gauge wire according to the drill diameter of the hardware?	—	—
2. Ensure that the wire was under proper tension after the wire was completely installed?	—	—
3. Ensure that the lockwire was pulling in a tightening direction?	—	—
4. Install the lockwire so that neither the wire nor its adjacent parts were subject to wear and tear?	—	—

Performed or Answered Correctly	Yes	No
5. Ensure that nicked, kinked, or mutilated lockwire was not installed?	—	—
6. Ensure that the cut off ends did not fall into the engine or retrieve ends that did fall into the engine?	—	—
7. Leave at least three full twists when cutting the lockwire at the end of a series?	—	—
8. Bend the remaining tang (end of lockwire) into the part to avoid sharp or projecting ends that might present a safety hazard?	—	—
9. Ensure that the lockwire was attached to the proper connecting points?	—	—
10. Use the correct tools and materials?	—	—

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's ability to rig J-79 engine afterburner nozzle assemblies.

Estimated Time: 25M Start: Finish: Time Req:

Time Limit: 30M #Times Performed: Last Performed:

Tools and Equipment: PUB: NAVAIR 02B-105AGD-6-1 WP 155 00, page 52, Tool Box, Rigging Kits, Pin 1C2754-8P1 and Gauge or T-Bar 1C3946-4, 0-150 inch-pound Torque Wrench, Tire, Nozzle Diameter Recorder (Pogo Stick), Nozzle Actuator Pressurizer (1C3569G1).

Background Information: A helper will be required to hold the tire (if used) when the incumbent measures across the trailing edges of the primary flaps and when adjusting the jam nuts. This test is good for Model 1 only.

Engine Configuration: The afterburner is completely installed with the nozzles closed to the rigging condition (22 5/16" plus or minus 1/16") using a nozzle actuator pressurizer. The jam nuts on the nozzle feedback cable and the temperature compensator cable are loose (backed off to eliminate tension on the cables).

Instructions:

Administer in the shop. Incumbent may use the PUB. Begin the evaluation with the measurement of the closed nozzle, (step 2 in the PUB).

SAY TO THE INCUMBENT

THE AFTERBURNER IS COMPLETELY INSTALLED WITH THE NOZZLES CLOSED TO THE RIGGING CONDITION. RIG THE ENGINE AFTERBURNER NOZZLE FEEDBACK CABLE AND THE TEMPERATURE COMPENSATORY CABLE USING PUB NAVAIR 02B-105AGD-6-1 WP 155 00 AS A GUIDE. BEGIN THE TASK WITH THE MEASUREMENT OF THE CLOSED NOZZLE. DO NOT LOCKWIRE THE RIGGING PORT PLUG AFTER INSTALLING IT INTO THE NOZZLE AREA CONTROL. NOTE THAT THE JAM NUTS ON THE REAR END OF THE NOZZLE FEEDBACK CABLE AND THE FORWARD END OF THE TEMPERATURE COMPENSATOR CABLE HAVE BEEN LOOSENED. FOLLOW GENERAL MAINTENANCE PROCEDURES AT ALL TIMES. TELL ME IF YOU PLAN TO DEVIATE FROM THE PUB.

Performed or Answered Correctly	Yes	No
Did the incumbent:		
1. Ensure that the nozzles were closed to an average diameter of 22 5/16" plus or minus 1/16"?	—	—
2. Ensure that the nozzle was NOT in an elliptical shape when taking the four measurements?	—	—
3. Remove the rigging port plug before attempting to adjust the jam nuts?	—	—
4. Adjust the jam nut on the forward end of the temperature compensatory cable so the holes in the "A" side of the rigging gauge could accept the axis of the temperature compensator spring assembly?	—	—
5. Adjust the jam nuts on the rear end of the nozzle feedback cable so the rigging pin could be moved freely in and out of the rigging port on the nozzle area control?	—	—
6. Ensure that the "B" side of the rigging gauge accepted the axles of the temperature compensator spring assembly?	—	—
7. Torque the jam nut on the temperature compensating cable 27 to 35 inch-pounds?	—	—
8. Torque the jam nut on the feedback cable 27 to 35 inch-pounds?	—	—
9. Install an O-ring when reinstalling the rigging port plug?	—	—
10. Torque the rigging port plug 20-30 inch-pounds?	—	—
11. Use the correct tools and materials?	—	—

STOP TIME: \_\_\_\_\_  
NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's knowledge concerning the rigging of J-79 engine inlet guide vane systems.

Estimated Time: 10M Start: \_\_\_\_\_ Finish: \_\_\_\_\_ Time Req: \_\_\_\_\_

Time Limit: 15M #Times Performed: \_\_\_\_\_ Last Performed: \_\_\_\_\_

Tools and Equipment: PUB: NAVAIR 02B-105AGD-6-1 WP 152 00

Background Information: N/A

Engine Configuration: N/A

Instructions:

Administer in the shop in view of the inlet guide vane rigging components. The incumbent may NOT use the PUB.

SAY TO THE INCUMBENT

I AM GOING TO ASK YOU SOME QUESTIONS ABOUT RIGGING INLET GUIDE VANE SYSTEMS. YOU WILL NOT BE ALLOWED TO USE THE PUB AS A REFERENCE, BUT THE RIGGING COMPONENTS WILL BE AVAILABLE FOR YOU TO VIEW WHEN ANSWERING THE QUESTIONS.

	Performed or Answered Correctly	Yes	No
1.	What might happen if the cable is allowed to snap back during the rigging procedure? ANSWER: The fuel control could be damaged.	—	—
2.	What is the reason for performing a cable pull check? ANSWER: To determine if there is binding along the cable.	—	—
3.	When adjusting the micro-adjust unit, should the rigging pin enter freely or fit snugly? ANSWER: The pin should enter and fall out freely.	—	—

Performed or Answered Correctly	Yes	No
4. What might happen if the jam nuts holding the micro-adjust unit in place are not tight while the engine is in operation? ANSWER: Vibration could cause the rigging to change.	—	—
5. After rigging the IGV, why must the distance between each jam nut and connector on the micro adjust be 7/32 of an inch or less? ANSWER: To catch the minimum thread engagement on the turn coupling.	—	—
6. Should you secure the conduit coupling nut, jam nut, and swivel assembly in a continuous safety wire procedure or wire each individually? ANSWER: Lockwire continuously.	—	—
7. Why do you need to hold the micro-adjustment unit with the 9/16" wrench when torquing the jam nuts to 50-60 inch-pounds? ANSWER: To keep the micro-adjustment unit from rotating which would cause a change in the rigging.	—	—

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's knowledge concerning the installation of J-79 engine number 3 bearings.

Estimated Time: 15M Start: Finish: Time Req

Time Limit: 20M #Times Performed: Last Performed:

Tools and Equipment: PUB: NAVAIR 02B-105AGD-6-1 WP 074 00

Background Information: N/A

Engine Configuration: N/A

Instructions:

Administer in the shop with an engine in view. The incumbent may NOT use the PUB.

SAY TO THE INCUMBENT

I AM GOING TO ASK YOU SOME QUESTIONS ABOUT THE INSTALLATION OF THE NUMBER 3 BEARINGS. YOU MAY NOT USE THE PUB WHEN ANSWERING THESE QUESTIONS. BEGIN BY TELLING ME STEP BY STEP HOW YOU SHOULD INSTALL THE NUMBER 3 BEARINGS. BE SURE TO INCLUDE ANY SAFETY PRECAUTIONS THAT YOU SHOULD FOLLOW.

Performed or Answered Correctly	Yes	No
Did the incumbent say that he/she would:		
1. Either wear gloves or protective cream when handling the bearing?	—	—
2. Ensure that the bearing assembly was chilled before attempting to install it?	—	—
3. Ensure that the bearings were not damaged?	—	—
4. Ensure that the bearings were centered?	—	—
5. Ensure that the snap ring was securely seated in the turbine frame?	—	—
6. Ensure that the No. 3 bearing outer race fit was tight after the parts reached room temperature?	—	—

Performed or Answered Correctly

Yes No

ASK THE INCUMBENT:

7. What must be done to the bearing assembly before attempting to install it in the turbine frame? (Must say all three.)

ANSWER Yes No

- a. The bearing assembly must be placed in a freezer to make it smaller.
- b. Lubricated
- c. Cleaned

— —  
— —  
— —

8. Why should gloves be worn when handling the bearings? (Must answer both for credit.)

ANSWER Yes No

- a. To prevent damage by corrosion to the bearings.
- b. To prevent injury to individual's hand due to cold.

— —  
— —

9. What must be done if the installed snap ring is loose in the groove?

ANSWER:

The snap ring must be removed and discarded and a new snap ring installed.

— —

10. What might cause the No. 3 bearing outer race fit to be loose?

ANSWER:

The bearing outer race, the bearing housing, or both could be out of limits (worn).

— —

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's knowledge concerning the installation of J-79 engine forward and rear number 3 oil seals.

Estimated Time: 15M Start: Finish: Time Req:

Time Limit: 20M #Times Performed: Last Performed:

Tools and Equipment: PUB: NAVAIR 02B-105AGD-6-1 WP 074 00

Background Information: N/A

Engine Configuration: N/A

Instructions:

Administer in the shop. The incumbent may NOT use the PUB.

SAY TO THE INCUMBENT

I AM GOING TO ASK YOU SOME QUESTIONS ABOUT THE INSTALLATION OF THE NUMBER 3 OIL SEAL. YOU MAY NOT USE THE PUB WHEN ANSWERING THESE QUESTIONS.

Performed or Answered Correctly	Yes	No
1. Why should you temporarily install the No. 3 bearing front oil seal and gasket? ANSWER: To make the concentricity check (run out check).	—	—
2. What would happen if the indicator foot was not installed properly on the oil seal? ANSWER: Damage could occur to the carbon seal.	—	—
3. What would happen if the wrong length bar was used to install the collar when performing the concentricity check? ANSWER: You would be unable to read the oil seal indicator reading because the indicator foot would be extended too far and you couldn't position it down inside the oil seal.	—	—

Performed or Answered Correctly	Yes	No
4. Why do you have to match mark the oil seal and the turbine frame? ANSWER: To enable you to correctly index the oil seal to the turbine frame when you reinstall the oil seal.	—	—
5. How would glyptal effect the JOAP (SOAP) <u>reading</u> ? ANSWER: Too much glyptal would result in <u>a high iron reading</u> on the JOAP.	—	—
6. Why is it important to coat the oil seal mounting bolts with glyptal? ANSWER: To prevent air from leaking through the bolts.	—	—

SAY TO THE INCUMBENT

WITHOUT THE USE OF THE PUB, TELL ME STEP BY STEP HOW YOU SHOULD INSTALL THE NUMBER 3 FORWARD AND REAR OIL SEALS AND THE REAR AIR SEALS. BE SURE TO INCLUDE ANY SAFETY PRECAUTIONS THAT YOU SHOULD FOLLOW.

Did the incumbent say he/she would:

7. Install the concentricity (run out) gauge? — —
8. Temporarily install the front oil seal? — —
9. Perform a run out check on the front oil seal? — —
10. Match mark the front oil seal? — —
11. Remove the front oil seal? — —
12. Temporarily install the rear oil seal? — —
13. Perform a run out check on the rear oil seal? — —
14. Match mark the rear oil seal? — —

Performed or Answered Correctly	Yes	No
15. Remove the rear oil seal?	—	—
16. Temporarily install the rear air seal?	—	—
17. Perform a run out check on the rear air seal?	—	—
18. Match mark the rear air seal?	—	—
19. Remove the rear air seal?	—	—
20. Remove the concentricity gauge?	—	—
21. Permanently install the front oil seal, rear oil seal, and rear air seal?	—	—

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's knowledge concerning the removal of J-79 engine turbine rotor packages.

Estimated Time: 15M Start: \_\_\_\_\_ Finish: \_\_\_\_\_ Time Req \_\_\_\_\_

Time Limit: 20M #Times Performed: \_\_\_\_\_ Last Performed: \_\_\_\_\_

Tools and Equipment: PUB: NAVAIR 02B-105AGD-6-1 WP 051 00,  
pages 1-16

Background Information: N/A

Engine Configuration: N/A

Instructions:

Administer in the shop. The incumbent may NOT use the PUB.

SAY TO THE INCUMBENT

WITHOUT THE USE OF THE PUB, TELL ME STEP BY STEP HOW YOU SHOULD REMOVE TURBINE ROTOR PACKAGES. BE SURE TO INCLUDE ALL APPROPRIATE SAFETY PRECAUTIONS. ASSUME THAT THE ENGINE IS IN A HORIZONTAL POSITION ON A MAINTENANCE STAND AND THAT THE AFTERBURNER IS REMOVED.

Performed or Answered Correctly	Yes	No
Did the incumbent say he/she would:		
1. Install the compressor lock in the front of the engine?	—	—
2. Straighten the bent tab washer?	—	—
3. Use a sequential pattern to tighten the jack screws when loosening the seal?	—	—
4. Ensure that the baffle was not twisted while it was being taken off?	—	—
5. Position the spider legs with the three mounting holes at the 10:30 and 1:30 location?	—	—

Performed or Answered Correctly	Yes	No
6. Ensure that the spider was not pressing against the front locking nut?	—	—
7. Ensure that the same numbered holes were used in each horizontal flange when installing the lift fixture brackets?	—	—
8. Ensure that the wheel locking rods were properly positioned with the brass shoe against the turbine wheel?	—	—
9. Align the slots in the lock ring and the torque ring of the wrench?	—	—
10. Turn the inner shaft <u>clockwise</u> until the marks on the inner shaft were aligned?	—	—
11. Ensure that the wrench was locked to the turbine/compressor bolt by attempting to pull the wrench back?	—	—
12. Ensure that the turbine section did not move either up or down while removing the turbine and combustion case bolts?	—	—
13. Ensure that the turbine section was pulled straight back to avoid internal damage?	—	—
14. Ensure that the wrench did not fall on the threads?	—	—
15. Ensure that the rotor did not touch the floor?	—	—

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

## NAVY/MARINE CORPS WTPT IMA ANSWER SHEET

Last Name,		First	MI	SSN			
Date	Base	Branch N/MC		Administrator			
START		I R1	H R1	I R2	I134	H134	<u>H134</u> <u>CONT</u>
FINISH							
TIME REQ							
= TIME							
LAST PERF							
1.	_____	1.	_____	1.	_____	1.	_____
2.	_____	2.	_____	2.	_____	2.	_____
3.	_____	3.	_____	3.	_____	3.	_____
4.	_____	4.	_____	4.	_____	4.	_____
5.	_____	5.	_____	5.	_____	5.	_____
6.	_____	6.	_____	6.	_____	6.	_____
7.	_____	7.	_____	7.	_____	7.	_____
8.	_____	8.	_____	8.	_____	8.	_____
9.	_____	9.	_____	9.	_____	9.	_____
10.	_____	10.	_____	10.	OP. I134	10.	_____
11.	_____	11.	OP. I R2			11.	_____
12.	_____	12.				12.	_____
13.	_____	13.				13.	_____
14.	_____	14.				14.	_____
15.	_____	15.				15.	_____
OP. I R1		16.				16.	_____
		OP. H R1				17.	OP. H134
							34. H134

## NAVY/MARINE CORPS WTPT IMA ANSWER SHEET

	H134 <u>CONTD</u>	H301	H302	H349	I353	H353
START		—	—	—	—	—
FINISH	—	—	—	—	—	—
TIME REQ	—	—	—	—	—	—
± TIME	—	—	—	—	—	—
LAST PERF	—	—	—	—	—	—
35.	1.	1.	1.	1.	1.	1.
36.	2.	2.	2.	2.	2.	2.
37.	3.	3.	3.	3.	3.	3.
38.	4.	4.	4.	4.	4.	4.
39.	5.	5.	5.	5.	5.	5.
40.	6.	6.	6.	6.	6.	6.
41.	7.	7.	7.	7.	7.	7.
42.	8.	OP. H302	8.	OP. I353	OP. H353	
43.	9.		9.			
44.	10.			OP. H349		
45.	11.					
46.	12.					
OP. H134	13.					
	OP. H301					

NAVY/MARINE CORPS WTPT IMA ANSWER SHEET

	I360	H360	I363	I373	H373	H385
START	_____	_____	_____	_____	_____	_____
FINISH	_____	_____	_____	_____	_____	_____
TIME REQ	_____	_____	_____	_____	_____	_____
# TIME	_____	_____	_____	_____	_____	_____
LAST PERF	_____	_____	_____	_____	_____	_____
1.	_____	1._____	1._____	1._____	1._____	1._____
2.	_____	2._____	2._____	2._____	2._____	2._____
3.	_____	3._____	3._____	3._____	3._____	3._____
4.	_____	4._____	4._____	4._____	4._____	4._____
5.	_____	5._____	5._____	5._____	5._____	5._____
6.	_____	6._____	6._____	6._____	6._____	6._____
7.	_____	OP._____ H360	7._____	7._____	7._____	6._____
8.	_____	8._____	8._____	8._____	8._____	8._____
9.	_____	9._____	9._____	9._____	9._____	9._____
OP._____ I360	OP._____ H363	10._____	10._____	10._____	10._____	
		11._____	OP._____ H373	11._____	OP._____ H385	
	OP._____ I373					

## NAVY/MARINE CORPS WTPT IMA ANSWER SHEET

	H387	I238	I239	I239 CONT	H247
START	_____	_____	_____	_____	_____
FINISH	_____	_____	_____	_____	_____
TIME REQ	_____	_____	_____	_____	_____
# TIME	_____	_____	_____	_____	_____
LAST PERF	_____	_____	_____	_____	_____
	1. _____	1. _____	1. _____	18. _____	1. _____
	2. _____	2. _____	2. _____	19. _____	2. _____
	3. _____	3. _____	3. _____	20. _____	3. _____
	4. _____	4. _____	4. _____	21. _____	4. _____
	5. _____	5. _____	5. _____	OP. _____	5. _____
	6. _____	6. _____	6. _____	I239	
	7. _____	7. _____	7. _____		6. _____
OP.	8. _____	8. _____			8. _____
H387	9. _____	9. _____			9. _____
	10. _____	10. _____			10. _____
OP.	11. _____				11. _____
H238	12. _____				12. _____
	13. _____				13. _____
	14. _____				14. _____
	15. _____				15. _____
	16. _____			OP. _____	
	17. _____			I247	

No. NOL 8057

COPY 3

MAINTENANCE/PRODUCTION CONTROL VIDS REGISTER COPY  
VIDS/MAF OPNAV 1790/60 (REV 2-82) S/N 0107-LF-047-9304

5 PART FORM  
USE BALL-POINT PEN PRESS HARD

**ENTRIES REQUIRED SIGNATURE**

**NONE LOGS REC**

**APPENDIX I**

**WALK THROUGH PERFORMANCE TESTING**  
**FOR**  
**NAVY/MARINE CORPS J-79 JET ENGINE MECHANICS**  
**AT THE**  
**ORGANIZATIONAL MAINTENANCE ACTIVITY (OMA)**

## Instructions to the Evaluator

This booklet contains WTPT items for first enlistment Navy/Marine Corps jet engine mechanics who work on the J-79 engine at the organizational maintenance activity (OMA).

Administer the test items according to the schedule established by the evaluation team leader at each base. Follow the general instructions outlined in the WTPT Administration Manual for Navy/Marine Corps Jet Engine Mechanics and the unique instructions specified on each test item selected to be evaluated.

## GENERAL INSTRUCTIONS FOR THE OMA INCUMBENT

YOU HAVE BEEN SELECTED TO PARTICIPATE IN A NAVY/MARINE CORPS RESEARCH PROJECT TO EVALUATE THE ENLISTED SELECTION PROCESS. YOU WILL PARTICIPATE IN A SERIES OF TESTS THAT WILL MEASURE YOUR PROFICIENCY AND KNOWLEDGE OF A SET OF TASKS. THE TESTING WILL TAKE APPROXIMATELY SIX HOURS AND WILL BE DIVIDED INTO TWO THREE HOUR SESSIONS. IF YOU ARE UNABLE TO COMPLETE BOTH SESSIONS TODAY, YOU MAY BE ASKED TO RETURN ON ANOTHER DAY.

I WILL ASK YOU QUESTIONS ABOUT SOME TASKS AND ASK YOU TO PERFORM SOME TASKS. I WILL TELL YOU WHICH PUBLICATIONS TO USE WHEN PERFORMING THESE TASKS, BUT YOU MUST DECIDE WHAT TOOLS AND MATERIALS TO USE. I WILL GIVE YOU TIME TO GATHER THE TOOLS AND MATERIALS BEFORE YOU BEGIN EACH TASK.

SOME TASKS REQUIRE MORE TIME TO COMPLETE THAN WE HAVE TIME TO EVALUATE, SO DO NOT BE ALARMED IF I ASK YOU TO STOP A TASK BEFORE YOU HAVE FINISHED. I WILL NOT EVALUATE EVERY STEP OF EVERY TASK. FOLLOW GENERAL MAINTENANCE PROCEDURES. TORQUE ALL NUTS OR BOLTS AS SPECIFIED IN THE PUB UNLESS I TELL YOU NOT TO TORQUE THEM.

ALL OF YOUR SCORES WILL BE KEPT CONFIDENTIAL. WHILE I WILL BE EVALUATING YOUR PERFORMANCE, IT IS IMPORTANT FOR YOU TO UNDERSTAND THAT WE ARE INVESTIGATING THE ENLISTED SELECTION PROCESS AND NOT YOU PERSONALLY. YOUR SCORES WILL NOT GO IN YOUR RECORDS AND THEY WILL NOT BE REVEALED TO YOUR SUPERIORS. YOUR SCORES CANNOT AFFECT YOUR RATINGS. HOWEVER, I DO ASK THAT YOU DO YOUR BEST WHEN PERFORMING THESE TASKS.

I WILL ONLY BE ABLE TO ANSWER QUESTIONS DEALING WITH THE ADMINISTRATION OF THESE TESTS. PLEASE DO NOT ASK ANY QUESTIONS ABOUT THE TASKS UNLESS THE QUESTIONS RELATE TO THE TEST ADMINISTRATION. PLEASE DO NOT TELL OTHERS WHAT QUESTIONS YOU ARE BEING ASKED SO THE TESTS WILL BE THE SAME FOR EVERYONE WHO TAKES THEM.

THESE TESTS ARE FOR J-79 OMA PERSONNEL. ARE YOU IN THIS GROUP?

BEFORE WE BEGIN, PLEASE GET A TOOL BOX THAT YOU CAN USE DURING THE ENTIRE SESSION. DO YOU HAVE ANY QUESTIONS?

NAME OF INCUMBENT \_\_\_\_\_ NAME \_\_\_\_\_

SSN \_\_\_\_\_ SSN \_\_\_\_\_

ADMINISTRATOR'S ID \_\_\_\_\_ RATER \_\_\_\_\_

DATE \_\_\_\_\_ DATE \_\_\_\_\_

BASE \_\_\_\_\_ BASE \_\_\_\_\_

BRANCH OF SERVICE: NAVY \_\_\_\_\_ MARINE CORPS \_\_\_\_\_

## TABLE OF CONTENTS

<u>TASK #</u>	<u>TASK STATEMENT AND ENGINE CONFIGURATION</u>	<u>PAGE</u>
<b>PHASE I</b>		
R1 I	INSTALL PRESSURIZING & DRAIN (P&D) VALVES	I-1
R1 H	INSTALL PRESSURIZING & DRAIN (P&D) VALVES Engine Configuration: P&D Valve off the engine.	I-4
R2 I	INSTALL AFTERBURNER FUEL PRESSURIZING VALVES	I-8
134 I	COMPLETE FORMS (VIDS/MAF)	I-11
134 H	COMPLETE FORMS (VIDS/MAF) Engine Configuration: N/A	I-14
301 H	INSPECT ENGINE PLUMBING (FUEL LINES) Engine Configuration: N/A	I-20
302 H	INSPECT A 3000 SERIES TRAILER FOR SERVICEABILITY Engine Configuration: N/A	I-23
349 H	INSTALL BLEED AIR SYSTEM COMPONENTS (MANIFOLD COLLECTOR BOWLS) Engine Configuration: The modified BLC system with the BLC ducts, the BLC support, and the short duct are installed on the engine. The cap and attachment hardware are removed from the manifold collector bowl. The manifold collector bowl is off the engine.	I-26
353 I	INSTALL FORWARD TOP ANTI-ICING DUCTS	I-29
353 H	INSTALL FORWARD TOP ANTI-ICING DUCTS Engine Configuration: The two engine forward side mounts are off the engine and the adapters are installed. The middle and rear anti-icing ducts and the valve assembly are on the engine. The assembled front anti-icing duct and the first stage manifold tubes are off the engine.	I-32

## TABLE OF CONTENTS (Cont'd)

<u>TASK #</u>	<u>TASK STATEMENT AND ENGINE CONFIGURATION</u>	<u>PAGE</u>
360 I	INSTALL AN EXHAUST GAS TEMPERATURE THERMOCOUPLE HARNESS	I-35
360 H	INSTALL AN EXHAUST GAS TEMPERATURE THERMOCOUPLE HARNESS Engine Configuration: Lines, feed-back and compensating cables, and harness are removed.	I-38
363 H	INSTALL IGNITION EXCITER BOXES Engine Configuration: Input/output leads installed. Exciter box is off the engine and discharged. Mounting studs and main electrical harness are installed.	I-41
373 I	INSTALL LOCKWIRE	I-44
373 H	INSTALL LOCKWIRE Engine Configuration: Exciter box is on the engine.	I-47
385 H	RIG AFTERBURNER NOZZLE ASSEMBLIES Engine Configuration: The afterburner is completely installed with the nozzles closed to the rigging condition (22 5/16 plus or minus 1/16") using a nozzle actuator pressurizer. The jam nuts on the nozzle feedback cable and the temperature compensatory cable are loose (backed off to eliminate tension on the cables).	I-50
387 I	RIG INLET GUIDE VANE SYSTEMS	I-53
 PHASE II		
319 I	ISOLATE ENGINE FUEL SYSTEM MALFUNCTIONS	II-1
325 I	DETERMINE THE SOURCE OF HIGH OIL CONSUMPTION	II-4
351 I	INSTALL CONSTANT SPEED DRIVE (CSD) AND GENERATOR ASSEMBLIES	II-8

Objective: To evaluate the incumbent's knowledge concerning the installation of pressurizing and drain (P&D) valves.

Estimated Time: 10M Start: \_\_\_\_\_ Finish: \_\_\_\_\_ Time Req: \_\_\_\_\_

Time Limit: 12M #Times Performed: \_\_\_\_\_ Last Performed: \_\_\_\_\_

Tools and Equipment: PUB: NAVAIR 02B-105AGD-6-1 WP 119 00, P&D Valve, Tool Box.

Background Information: N/A

Engine Configuration: N/A

Instructions:

Administer in the shop by the engine. The incumbent may NOT use the PUB. Hand the incumbent the P&D valve before you read the instructions.

SAY TO THE INCUMBENT

WITHOUT THE USE OF THE PUB, TELL ME STEP BY STEP HOW YOU SHOULD INSTALL THE P&D VALVE. INCLUDE ALL SAFETY PRECAUTIONS THAT YOU SHOULD FOLLOW. YOU MAY USE THE ENGINE, THE P&D VALVE, AND ANY TOOLS THAT YOU WOULD NORMALLY USE TO SHOW ME HOW THE VALVE SHOULD BE INSTALLED.

Performed or Answered Correctly	Yes	No
Did the incumbent say he/she would:		
1. Lubricate the O-rings and seal with petrolatum prior to installation?	—	—
2. Install the large elbows, jam nuts and O-rings in the large outlet ports and rear port?	—	—
3. Leave the jam nuts finger tight until after the fuel manifolds were installed?	—	—

Performed or Answered Correctly	Yes	No
Did the incumbent say he/she would:		
4. Install the clamp bracket pointing forward under the head of the outer lower bolt?	—	—
5. Torque the four bolts holding the valve to the rear of the main oil cooler?	—	—
6. Install the two bolts (securing the valve to the rear mounting bracket) with heads facing forward?	—	—
7. Install the two O-rings, drain tube and connector bolt in the drain port in the correct order (O-ring, drain tube, O-ring, bolt)?	—	—
8. Torque the connector bolt?	—	—
9. Make torquing adjustments if an adapter was used?	—	—
10. Install the two jam nuts and manifold fitting finger tight before torquing to ensure a proper fit with no kinks?	—	—
11. Torque the two jam nuts holding the two large elbows?	—	—
12. Torque the manifold fitting?	—	—
13. Install the rear elbow to the P&D valve before installing the reference pressure fuel manifold (inlet)?	—	—
14. Torque the jam nut holding the rear elbow?	—	—
15. Torque the referencing pressure fuel manifold nut?	—	—

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's ability to install pressurizing and drain (P&D) valves.

Estimated Time: 25M Start: \_\_\_\_\_ Finish: \_\_\_\_\_ Time Req: \_\_\_\_\_

Time Limit: 35M #Times Performed: \_\_\_\_\_ Last Performed: \_\_\_\_\_

Tools and Equipment: PUB: NAVAIR 02B-105AGD-6-1 WP 119 00, and WP-032, Tool Box, 0-150 inch-pound Torque Wrench, 0-600 inch-pound Torque Wrench, 0-150 foot-pound Torque Wrench, Torque Wrench Adapter, Petrolatum, Pressurizing and Drain Valve, 3 (J221P04) O-rings, 2 (J221P910) O-rings, J219P05A Gasket.

Background Information: The correct torque wrench adapter must be determined at each testing site depending on the torque wrenches available.

Engine Configuration: Main oil cooler, compressor rear frame bracket, and fuel manifold and reference pressure lines installed.

Component Configuration: Elbows, jam nuts, and O-rings off P&D Valve.

Instructions:

Administer in the shop by the engine. The incumbent may use the PUB. Evaluate incumbent's ability to identify PUBs with this task.

SAY TO THE INCUMBENT

GET THE PUB USED TO INSTALL A PRESSURIZING AND DRAIN (P&D) VALVE AND THE PUB FOR GENERAL TORQUING PROCEDURES. SHOW ME THE APPROPRIATE PAGES IN BOTH PUBS THEN INSTALL THE P&D VALVE USING THE PROCEDURES FROM THE PUBS AS A GUIDE. FOLLOW GENERAL MAINTENANCE PROCEDURES AT ALL TIMES. TELL ME IF YOU PLAN TO DEVIATE FROM THE PUB. DO NOT INSTALL ANY LOCKWIRE BUT TELL ME WHEN AND WHERE YOU SHOULD INSTALL THE LOCKWIRE.

Performed or Answered Correctly Yes No

Did the incumbent:

1. Identify the two Pubs within 10 minutes? \_\_\_\_\_
2. Lubricate the O-rings and seal with petrolatum prior to installation? \_\_\_\_\_

Performed or Answered Correctly	Yes	No
Did the incumbent:		
3. Install elbows, jam nuts, and O-rings in the large outlet and rear ports?	—	—
4. Leave the jam nuts finger tight until after the fuel manifolds were installed?	—	—
5. Install the clamp bracket <u>pointing forward under the head of the outer bolt</u> ?	—	—
6. Torque the four bolts holding the valve to the rear of the main oil cooler 55-70 inch-pounds?	—	—
7. Install the two bolts (securing the valve to the rear mounting bracket) with heads facing forward?	—	—
8. Install the two O-rings, drain tube and connector bolt in the drain port in the correct order (O-ring, drain tube, O-ring connector bolt)?	—	—
9. Torque the connector bolt 135 to 150 inch-pounds (must make adjustments if adapter is used)?	—	—
10. Install the two jam nuts and manifold fitting finger tight before torquing to ensure a proper fit with no kinks?	—	—
11. Torque the two jam nuts holding the two large elbows 360 to 400 inch-pounds (must make adjustments if adapter is used)?	—	—
12. Torque the manifold fitting 54-64 foot-pounds (must make adjustments if adapter is used)?	—	—
13. Install the rear elbow to the P&D valve before installing the reference pressure fuel manifold (inlet)?	—	—

Performed or Answered Correctly      Yes      No

Did the incumbent:

14. Torque the jam nut holding the rear elbow 135 to 150 inch-pounds?
15. Torque the referencing pressure fuel manifold nut 135 to 150 inch-pounds?
16. Use the correct tools?

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's knowledge concerning the installation of afterburner fuel pressurizing valves.

Estimated Time: Start: Finish: Time Req:

Time Limit: #Times Performed: Last Performed:

Tools and Equipment: PUB: NAVAIR 02B-105AGD-6-1 WP 126 00

Background Information: N/A

Engine Configuration: N/A

Instructions:

Administer in the shop by an engine.

SAY TO THE INCUMBENT

WITHOUT THE USE OF THE PUB, TELL ME STEP BY STEP HOW YOU SHOULD INSTALL THE AFTERBURNER PRESSURIZING VALVE. BE SURE TO INCLUDE ALL SAFETY PRECAUTIONS THAT YOU SHOULD FOLLOW. YOU MAY USE THE ENGINE, THE VALVE, AND ANY TOOLS THAT YOU WOULD NORMALLY USE TO SHOW ME HOW THE VALVE SHOULD BE INSTALLED.

Performed or Answered Correctly	Yes	No
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Did the incumbent say he/she would:

1. Install the valve to the mounting bracket using two bolts, six washers, and two nuts?
2. Leave the mounting bolts finger tight until after all the connections are made?
3. Ensure that the valve is in the correct position?
4. Install the afterburner core fuel and annulus fuel supply lines?
5. Hold the valve with a support wrench when torquing the supply tubes?
6. Torque the tubes at the valve?
7. Torque the tubes at the connectors?

Performed or Answered Correctly	Yes	No
Did the incumbent say he/she would:		
8. Tighten the three tube clamp groups?	—	—
9. Hold each of the four valve outlet connectors with a wrench while torquing the four outlet tube B-nuts?	—	—
10. Torque the valve mounting bolts?	—	—

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's knowledge concerning the completion of the VIDS/MAF maintenance form.

Estimated Time: 15M Start: \_\_\_\_\_ Finish: \_\_\_\_\_ Time Req: \_\_\_\_\_

Time Limit: 20M #Times Performed: \_\_\_\_\_ Last Performed: \_\_\_\_\_

Tools and Equipment: PUB: OPNAV INST 4790.2C, Volume II, pages 11-47 and Work Unit Code.

Background Information: N/A

Engine Configuration: N/A

Instructions:

Administer in a quiet place. The incumbent may use the PUB. Hand the incumbent a blank VIDS/MAF form.

SAY TO THE INCUMBENT

HERE IS A VIDS/MAF. I WILL GIVE YOU TIME TO EXAMINE THE FORM THEN I WILL ASK YOU SOME QUESTIONS. YOU WILL NOT BE ALLOWED TO USE THE PUB WHEN ANSWERING THESE QUESTIONS.

Performed or Answered Correctly	Yes	No
HAND THE INCUMBENT THE VIDS/MAF		
1. What is the purpose of the VIDS/MAF? ANSWER: Process reports and controls (To follow the parts through the repair process).	—	—
2. Under what condition would a supply document number entry be made in Block 49? ANSWER: When a demand has been placed on the supply system for a like item as a replacement.	—	—
3. When working in the power plant, in which block do you note that you have repaired an item by replacing a part? ANSWER: Corrective Action Block	—	—

4. What is the purpose of the job control number:  
ANSWER:  
To control and justify the maintenance jobs. — —

5. What do the numbers in block A11 represent?  
ANSWER:  
The Julian date. — —

6. What does the work center entry in block A19 tell us?  
ANSWER:  
Where the individual who is doing the work is assigned. Not necessarily where the work is being performed. — —

7. What entry on the form identifies the part on which the work is being performed?  
(Only one answer required for credit.)  
ANSWER:  
a. Removed old item - E23  
b. Discrepancy  
c. Work Unit Code - A22 — —

8. Who completes the "inspected by" block?  
ANSWER:  
The Collateral Duty Inspector (CDI) or the Quality Assurance Inspector. — —

9. How can you tell that a part has been ordered?  
ANSWER:  
By looking at the DOC No. block. If a part has been ordered, the DOC No. block will be filled in with the supply document number. — —

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's ability to complete the VIDS/MAF maintenance form.

Estimated Time: 25M Start: Finish: Time Req:

Time Limit: 30M #Times Performed: Last Performed:

Tools and Equipment: PUB: OPNAV INST 4790.2C, Volume III,  
(pages 16-207) and Work Unit Code.

Background Information: N/A

Engine Configuration: N/A

Instructions:

Administer in a quiet place. The incumbent may use the PUB. Give the incumbent the information card and blank VIDS/MAF form.

SAY TO THE INCUMBENT

THIS TEST WAS DEVELOPED USING PUB OPNAV INST 4790.2C, VOLUME II. USING THIS PUB AND THE WORK UNIT CODE MANUAL AS A GUIDE, COMPLETE THIS VIDS/MAF ACCORDING TO THE INFORMATION ON THIS CARD.

BACKGROUND INFORMATION SHEET TO ENABLE THE J-79 OMA EXAMINEE  
TO COMPLETE THE VIDS/MAF

While troubleshooting an afterburner fuel pump grip on aircraft serial number 152487, the afterburner fuel pump on the right engine was found to be leaking beyond limits. Using the following information, fill in all the appropriate blanks on the VIDS/MAF to show that the afterburner fuel pump had been installed but that no installation inspection had been made. Ensure that all appropriate supply and record data is entered on the VIDS/MAF.

You are an O level maintenance person.  
Jack Smith made SRC card log and record entries.  
You performed the work by yourself.  
The discrepancy is "Fuel pump leaking beyond limits."  
The type of equipment code is AFPT.  
The engine serial number 448085  
The engine time is 3237.  
The work unit code is 23 A6P00.  
The type of maintenance is unscheduled.  
Your work center is 110.  
The job control number is RDX 227 612-01.  
You started the job at 0730 on 15 August 1985.  
Your tool box number is 2.  
The manufacturer's code for the ABFP is 99167.  
The serial number of the old A/B pump is 60.  
The old ABFP number is 512 D 809P12.  
The operating time on the old ABFP is 1793.  
The reference is NAVAIR 02B-105AGFD-4, Fig 36, Pg 14, Item 33.  
The project code is AKO.  
The priority is 2.  
The document number is 52267 16 16.  
The serial number of the new A/B pump is 70.  
The new ABFP has one hour time on it.  
Your organization is RDX.  
It took you two hours to remove the old pump and three hours to install the new pump.  
You went to supply at 0930 and it took you 15 minutes to get the ABFP.

Performed or Answered Correctly Yes No

Did the OMA examinee complete the form as follows:

<u>Block</u>	<u>Entry</u>		
1. LOGS REC	XX Jack Smith	—	—

ACCUMULATED WORK HOURS

2. NAME/SHIFT	Examinee's Name	—	—
3. TOOL BOX	2	—	—
4. DATE	5227	—	—
5. MAN HOURS (FIRST LINE)	2	—	—
6. ELAPSED M/T (FIRST LINE)	2	—	—
7. MAN HOURS (SECOND LINE)	3	—	—
8. ELAPSED M/T (SECOND LINE)	3	—	—
9. REFERENCE	NA-02B-105AGD-4 Fig 36, Pg 14, It33	—	—

LINE ONE

10. MFGR (4)	JRUC2	—	—
11. PART # (19)	448085E3237	—	—
12. QTY	00	—	—

LINE TWO

13. REF SYM (34)	Pump	—	—
14. PROJ	AKO	—	—
15. PRI (43)	02	—	—
16. REQ NO. (49)	1616	—	—

Performed or Answered Correctly		Yes	No
FOLD			
17. WORK UNIT CODE (A22)	23A6POO	—	—
18. ACTION ORG (A29)	RDX	—	—
19. TRANS (A32)	25	—	—
20. MAINT/L (A34)	1	—	—
21. ACT TAKEN (A35)	R	—	—
22. MAL CODE (A36)	381	—	—
23. ITEM/P (A39)	01	—	—
24. MAN HOURS (A41)	5/0	—	—
25. ELAPSED M/T (A45)	5/0	—	—
26. TYPE EQUIP (A48)	AFPT	—	—
27. BU/SER (A52)	152487	—	—
28. DISCD (A58)	A	—	—
29. T/M (A59)	B	—	—
REPAIR CYCLE			
30. DATE (B08)	5227	—	—
REMOVED/OLD ITEM			
31. MFGR (E08)	99167	—	—
32. SERIAL (E13)	60	—	—
33. PART # (E23)	512D809P12	—	—
34. DATE REMOVED (E38)	5227	—	—
35. TIME/CYCLES (E42)	C1793	—	—

Phase I J-79  
OMA Answer Sheet

Hands-On Task 134

Performed or Answered Correctly		Yes	No
<b>INSTALLED/NEW ITEM</b>			
36. MFGR (G08)	99167	—	—
37. SERIAL # (G13)	70	—	—
38. PART # (G23)	512D809P12	—	—
39. TIME/CYCLES (G38)	C0001	—	—
<b>JOB CONTROL NUMBER</b>			
40. ORG (A08)	RDX	—	—
41. DAY (A11)	227	—	—
42. SER (A14)	612	—	—
43. WORK CENTER (A19)	110	—	—
44. DISCREPANCY	A/B Fuel pump leaking beyond limits	—	—
45. CORRECTIVE ACTION	R&R A/B Fuel Pump	—	—
46. CORRECTED BY	Examinee's Name/Rank	—	—

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's ability to inspect engine plumbing.

Estimated Time: 15M Start: \_\_\_\_\_ Finish: \_\_\_\_\_ Time Req: \_\_\_\_\_

Time Limit: 20M #Times Performed: \_\_\_\_\_ Last Performed: \_\_\_\_\_

Tools and Equipment: PUB: NAVAIR 02B-105AGD-6-1 WP 039 00

Background Information: N/A

Engine Configuration: N/A

Instructions:

Administer in the shop in a quiet place. The incumbent may use the Pub.

SAY TO THE INCUMBENT

HERE IS A PIECE OF FLEXIBLE FUEL LINE. EXAMINE IT CAREFULLY. IDENTIFY ALL DISCREPANCIES AND TELL ME IF THE DISCREPANCIES ARE IN OR OUT OF LIMITS ACCORDING TO NAVAIR 02B-105AGD-6-1 WP 039 00.

Performed or Answered Correctly	Yes	No
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Did the incumbent:

1. Identify the defect which was 1 inch from the 90 degree fitting?

\_\_\_\_\_

Say that the defect which was 1 inch from the 90 degree fitting was:

2. within limits?

\_\_\_\_\_

3. within limits because there were no broken braid plaits?

\_\_\_\_\_

4. Identify the defect which was 1 inch from the 45 degree fitting?

\_\_\_\_\_

Performed or Answered Correctly	Yes	No
Say the defect which was 1 inch from the 45 degree fitting was:		
5. out of limits?	—	—
6. out of limits because there were more than three broken wires on the plait?	—	—
7. <u>Identify</u> the defect which was 4 inches from the 45 degree fitting?	—	—
Say that the defect which was 4 inches from the 45 degree fitting was:		
8. within limits?	—	—
9. within limits because there were three or more broken wires on the plait?	—	—
10. <u>Identify</u> the defect which was 5 inches from the 45 degree fitting?	—	—
Say that the defect which was 5 inches from the 45 degree fitting was:		
11. out of limits?	—	—
12. out of limits because the entire plait of five wires was broken?	—	—
13. <u>Identify</u> the foil plug in the 45 degree fitting?	—	—

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's ability to inspect a 3000 series trailer for serviceability.

Estimated Time: 10M Start: \_\_\_\_\_ Finish: \_\_\_\_\_ Time Req: \_\_\_\_\_

Time Limit: 15M #Times Performed: \_\_\_\_\_ Last Performed: \_\_\_\_\_

Tools and Equipment: PUB: NAVAIR 19-600-76-6-4 Card #1

Background Information: A complete inspection of a trailer would be performed by an accessory incumbent. IMA and OMA individuals perform serviceability inspections. One person task.

Engine Configuration: N/A

Instructions:

Administer in the shop by either a 3000 or 3010 trailer. The incumbent may use the PUB. The inspection steps may be performed in any order.

SAY TO THE INCUMBENT

USING PUB NAVAIR 19-600-76-6-4 Card #1 AS A GUIDE, PERFORM A USER INSPECTION ON THIS TRAILER. PLEASE DEMONSTRATE WHAT YOU WOULD DO TO PERFORM THE INSPECTION AND TELL ME WHAT VISUAL INSPECTION YOU WOULD MAKE.

Performed or Answered Correctly	Yes	No
Did the incumbent inspect for:		
1. A secure tow bar?	—	—
2. Working brakes?	—	—
3. Serviceability of tires (cuts, inflation, etc)?	—	—
4. Secure connecting pin?	—	—
5. Operational stop pins (4)?	—	—

Performed or Answered Correctly	Yes	No
6. Chips in rails?	—	—
7. Frayed wires on the lockpins?	—	—

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's ability to install J-79 engine bleed air system components (manifold collector bowls).

Estimated Time: 30M Start: \_\_\_\_\_ Finish: \_\_\_\_\_ Time Req: \_\_\_\_\_

Time Limit: 45M #Times Performed: \_\_\_\_\_ Last Performed: \_\_\_\_\_

Tools and Equipment: PUB: NAVAIR 001-245FDD-2-3-5, Pg 3-46, Tool Box, Petrolatum or Tape, 0-150 inch-pound Torque Wrench, 0-300 inch-pound Torque Wrench, one 50887-550S Conoseal, one MAO 06-005 Gasket.

Background Information: Evaluate on modified bleed air system.

Engine Configuration: The modified BLC system with the BLC ducts, the BLC support, and the short duct are installed on the engine. The cap and attachment hardware are removed from the manifold collector bowl. The manifold collector bowl is off the engine. Do NOT remove the bracket assembly from the engine (remove the six o'clock bolt).

Instructions:

Administer in the shop. The incumbent may use the PUB. Hold the rig pin in while the incumbent tightens the rear end jam nuts. Show the incumbent the manifold collector bowl to ensure that he/she understands what component is to be installed.

SAY TO THE INCUMBENT

INSTALL THE BLEED AIR SYSTEM MANIFOLD COLLECTOR BOWL USING PUB NAVAIR 01-245FDD-2-3-5, PG 3-46 AS A GUIDE. FOLLOW GENERAL MAINTENANCE PROCEDURES AT ALL TIMES. TELL ME IF YOU PLAN TO DEVIATE FROM THE PUB.

Performed or Answered Correctly	Yes	No
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Did the incumbent:

1. Ensure that the conoseal gasket was installed with the gasket angle oriented with the flange face of the duct? \_\_\_\_\_
2. Position the collector coupling (V-Band clamp) split line at the 3 or 9 o'clock position with the bolt facing down? \_\_\_\_\_

Performed or Answered Correctly	Yes	No
3. Install all gaskets and ducts in their proper position according to the PUB, figure entitled Compressor Bleed Air Manifold Installation?	—	—
4. Install two nuts on the stub duct (short duct or beer can) clamp?	—	—
5. Torque all nuts correctly?	Yes	No
a. Bleed air duct assembly (collector bowl) attachment clamp: 120-140 inch-pounds?	—	—
b. Stub duct (beer can) clamp safety nut: 75-80 inch-pounds?	—	—
c. Bracket assembly clamp (coupling) nut: 10-15 inch-pounds?	—	—
6. Properly seat the attachment clamp and the stub duct clamp using a rubber mallet and lightly tapping the clamps?	—	—
7. Install the bowl correctly?	—	—
8. Use the correct tools and materials?	—	—

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's knowledge concerning the installation of J-79 engine forward top anti-icing ducts.

Estimated Time: 10M Start: Finish: Time Req:

Time Limit: 12M #Times Performed: Last Performed:

Tools and Equipment: PUB: NAVAIR 02B-105AGD-6-1 WP 145 00, Tool Box, 0-150 inch-pound Torque Wrench, 0-300 inch-pound Torque Wrench, 750-1600 inch-pound Torque Wrench, 2 1/2 inch Crow's Foot, Forward Top Anti-Icing Ducts.

Background Information: N/A

Engine Configuration: N/A

Instructions:

Administer in the shop by the engine. The incumbent may NOT use the PUB.

SAY TO THE INCUMBENT

WITHOUT THE USE OF THE PUB, TELL ME STEP BY STEP HOW YOU SHOULD INSTALL THE FORWARD ANTI-ICING DUCT. BE SURE TO INCLUDE ALL SAFETY PRECAUTIONS THAT YOU SHOULD FOLLOW. YOU MAY USE THE ENGINE, THE ANTI-ICING DUCT, AND ANY TOOLS THAT YOU WOULD NORMALLY USE TO SHOW ME HOW THE DUCT SHOULD BE INSTALLED.

Performed or Answered Correctly

Yes No

Did the incumbent say he/she would:

1. Ensure that all covers, plugs, and caps were removed before installing the duct?
2. Leave the forward anti-icing duct and the tube threaded fasteners loose until connecting to the center duct?
3. Place the gaskets between the front pads and the air ducts?
4. Secure the air ducts with four bolts and washers on each pad?

Performed or Answered Correctly	Yes	No
5. Ensure that the parts were properly aligned and then torqued the bolts and the nuts in the following order: a. Forward duct to frame? b. Forward duct to center duct?	—	—
6. Attempt to retrieve any foreign objects that were dropped into the engine?	—	—

ASK THE INCUMBENT:

7. Why do you leave all the bolts loose until after you connect the tube to the center duct?

ANSWER:  
So the final adjustment can be made for a proper fit.

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's ability to install J-79 engine forward top anti-icing ducts.

Estimated Time: 30M Start: \_\_\_\_\_ Finish: \_\_\_\_\_ Time Req: \_\_\_\_\_

Time Limit: 35M #Times Performed: \_\_\_\_\_ Last Performed: \_\_\_\_\_

Tools and Equipment: PUB: NAVAIR 02B-105AGD-6-1 WP 145 00, page 2, Tool Box, 0-150 inch-pound Torque Wrench, 0-300 inch-pound Torque Wrench, 750-1600 inch-pound Torque Wrench, 2 1/2 inch Crow's Foot, Adapter 1C2771-63 (FSN 4920-703-9504) Forward Frame to Horizontal Rail Support.

Background Information: One person task.

Engine Configuration: The two engine forward side mounts are off the engine and the adapters are installed. The middle and rear anti-icing ducts and the valve assembly are on the engine. The assembled front anti-icing duct and the first stage manifold tubes are off the engine.

Instructions: Administer in the shop. The incumbent may use the PUB.

SAY TO THE INCUMBENT

INSTALL THE FORWARD TOP ANTI-ICING DUCT ON THE ENGINE USING PUB NAVAIR 02B-105AGD-6-1 WP 145 00 AS A GUIDE. FOLLOW GENERAL MAINTENANCE PROCEDURES AT ALL TIMES. TELL ME IF YOU PLAN TO DEVIATE FROM THE PUB.

Performed or Answered Correctly	Yes	No
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Did the incumbent:

1. Ensure that all covers, plugs, and caps were removed before installing the duct?
2. Leave the forward anti-icing duct and the tube threaded fasteners loose until connecting to the center duct?
3. Place the gaskets between the front pads and the air ducts?
4. Secure the air ducts with four bolts and washers on each pad?

Performed or Answered Correctly	Yes	No
5. Ensure that the parts were properly aligned and then torqued the bolts and the nuts in the following order: a. Forward duct to frame? b. Forward duct to center duct?	—	—
6. Attempt to retrieve any foreign objects that were dropped into the engine?	—	—
7. Use the correct tools and materials?	—	—

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's knowledge concerning the installation of a J-79 engine exhaust gas temperature thermocouple harness.

Estimated Time: 10M Start: \_\_\_\_\_ Finish: \_\_\_\_\_ Time Req. \_\_\_\_\_

Time Limit: 12M #Times Performed: \_\_\_\_\_ Last Performed: \_\_\_\_\_

Tools and Equipment: PUB: NAVAIR 02B-105ADG-6-1 WP 150 00,  
page 4, Tool Box, EGT Thermocouple Harness

Background Information: N/A

Engine Configuration: N/A

Instructions:

Administer in the shop by the engine. The incumbent may NOT use the PUB. Hand the incumbent the thermocouple harness.

SAY TO THE INCUMBENT

WITHOUT THE USE OF THE PUB, TELL ME STEP BY STEP HOW YOU SHOULD INSTALL TOP THERMOCOUPLE HARNESS. INCLUDE ALL SAFETY PRECAUTIONS THAT YOU SHOULD FOLLOW. YOU MAY USE THE ENGINE, THE HARNESS, AND ANY TOOLS THAT YOU WOULD NORMALLY USE TO SHOW ME HOW THE HARNESS SHOULD BE INSTALLED.

Performed or Answered Correctly	Yes	No
Did the incumbent say he/she would:		
1. Ensure that no burrs remained on the threads or mating surface of the turbine frame boss?	—	—
2. Ensure that no lubricant ran into the filler material around the thermocouple loops at the end of the probes?	—	—
3. Apply a thin coating of lubricant on threaded areas of each thermocouple boss on the turbine frame?	—	—
4. Ensure that the harness did not bend causing the inside filament to be broken?	—	—

Performed or Answered Correctly	Yes	No
5. Leave all nuts loose until all the probes were installed?	—	—
6. Torque each nut?	—	—
7. Install an aluminum gasket between the top harness and lead?	—	—

ASK THE INCUMBENT:

8. Why is it important that you do not bend the harness when installing it?	—	—
ANSWER: You could break the chromel and alumel (filament) inside the harness.		
9. Why is it important to properly align the harness when installing it?	—	—
ANSWER: To prevent damage to the probes and the ferrule.		

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's ability to install a J-79 engine exhaust gas temperature thermocouple harness.

Estimated Time: 20M Start: \_\_\_\_\_ Finish: \_\_\_\_\_ Time Reg. \_\_\_\_\_  
Time Limit: 25M #Times Performed: \_\_\_\_\_ Last Performed: \_\_\_\_\_

Tools and Equipment: PUB: NAVAIR 02B-105ADG-6-1 WP 150 00,  
page 4, Tool Box.

Background Information: One or two person task.

Engine Configuration: #3 oil supply line is removed, top (right) harness removed.

Instructions:

Administer in the shop. The incumbent may use the PUB. Have the incumbent install all probes finger tight, then stop the evaluation. Do not have him torque the nuts, apply safety wire, or connect the lead.

SAY TO THE INCUMBENT

INSTALL THE TOP THERMOCOUPLE HARNESS USING PUB NAVAIR 02B-105ADG-6-1 WP 105 00 AS A GUIDE. YOU WILL NOT BE ASKED TO TORQUE THE NUTS OR INSTALL THE LOCKWIRE. FOLLOW GENERAL MAINTENANCE PROCEDURES AT ALL TIMES. TELL ME IF YOU PLAN TO DEVIATE FROM THE PUB.

Performed or Answered Correctly

Yes No

Did the incumbent:

1. Ensure that no burrs remained on the threads or mating surface of the turbine frame boss? \_\_\_\_\_
2. Ensure that no lubricant ran into the filler material around the thermocouple loops at the ends of the probes? \_\_\_\_\_
3. Apply a thin coating of lubricant on threaded areas of each thermocouple boss on the turbine frame? \_\_\_\_\_

Performed or Answered Correctly		Yes	No
4.	Ensure that the harness did not bend causing the inside filament to be broken?	—	—
5.	Leave all nuts loose until all the probes were installed?	—	—
6.	Use the correct tools and materials?	—	—

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's ability to install J-79 engine ignition exciter boxes.

Estimated Time: 15M Start: \_\_\_\_\_ Finish: \_\_\_\_\_ Time Req: \_\_\_\_\_

Time Limit: 20M #Times Performed: \_\_\_\_\_ Last Performed: \_\_\_\_\_

Tools and Equipment: PUB: NAVAIR 02B-105AGD-6-1 WP 147 00, 0-150 inch-pound Torque Wrench, Tool Box.

Background Information: The estimated time does not include the installation of the lockwire.

Engine Configuration: Input/output leads installed. Exciter box off the engine and discharged. Mounting studs and main electrical harness are installed.

Instructions:

Administer in the shop. The incumbent may use the PUB. Evaluate the incumbent's performance on Phase I, Task 373 (Install Lockwire) while evaluating the incumbent's performance on the installation of the ignition exciter box. Stop the incumbent before he/she begins installing the lockwire. Go to test item 373 to evaluate the lockwire installation.

SAY TO THE INCUMBENT

INSTALL THE IGNITION EXCITER BOX USING PUB NAVAIR 02B-105AGD-6-1 WP 147 00 AS A GUIDE. FOLLOW GENERAL MAINTENANCE PROCEDURES AT ALL TIMES. TELL ME IF YOU PLAN TO DEVIATE FROM THE PUB. DO NOT LOCKWIRE THE INPUT LEADS.

Performed or Answered Correctly	Yes	No
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Did the incumbent:

1. Position the main ignition exciter unit correctly? \_\_\_\_\_
2. Install the lock nuts when installing the ignition exciter unit? \_\_\_\_\_
3. Torque the lock nuts 55 to 70 inch-pounds? \_\_\_\_\_
4. Install the main (top) lead to the number 4 liner ignition plug? \_\_\_\_\_

Performed or Answered Correctly	Yes	No
5. Torque the main lead 130 to 150 inch-pounds?	—	—
6. Install the afterburner ignition lead to the afterburner ignition plug?	—	—
7. Torque the afterburner lead 130 to 150 inch-pounds?	—	—
8. Connect the power input lead?	—	—
9. Use the correct tools and materials?	—	—

GO TO TEST ITEM 373 TO EVALUATE LOCKWIRE INSTALLATION.

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's knowledge concerning the installation of lockwire.

Estimated Time: 10M Start: Finish: Time Req:

Time Limit: 12M #Times Performed: Last Performed:

Tools and Equipment: PUB: NAVAIR 02B-105AGD-6-1 WP 033 00

Background Information: N/A

Engine Configuration: N/A

Instructions:

Administer in the shop. The incumbent may NOT use the PUB.

SAY TO THE INCUMBENT

WITHOUT THE USE OF THE PUB, TELL ME STEP BY STEP HOW YOU SHOULD INSTALL LOCKWIRE. BE SURE TO INCLUDE ALL SAFETY PRECAUTIONS THAT YOU SHOULD FOLLOW.

Performed or Answered Correctly	Yes	No
Did the incumbent say he/she would:		
1. Insert the proper gauge wire in accordance with the publication specification?	—	—
2. Ensure that the wire was under proper tension after the wire was completely installed?	—	—
3. Install lockwire so that neither the wire nor its adjacent parts were subject to wear and tear?	—	—
4. Ensure that nicked, kinked, or mutilated lockwire was not installed?	—	—
5. Ensure that the cut off ends did not fall into the engine, or retrieve ends that did fall into the engine?	—	—
6. Leave at least three full twists when cutting lockwire at the end?	—	—

Performed or Answered Correctly	Yes	No
7. Bend the remaining tang (end of lockwire) into the part to avoid sharp or projecting ends that might present a safety hazard?	—	—
<b>SAY TO THE INCUMBENT:</b>		
8. What is the minimum number of twists that you should leave at the end of the installed lockwire?	—	—
ANSWER: Three (3)	—	—
9. Why should the end of the safety wire be bent?	—	—
ANSWER: To prevent a safety hazard.	—	—
10. What is the maximum number of nuts that you are allowed to have safety wired in a connected series?	—	—
ANSWER: Incumbent may answer 3 or 4. Three (3) _____ Four (4) _____	—	—
11. What is the longest length of lockwire that can be used in a series?	—	—
ANSWER: 24 inches	—	—

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's ability to install lockwire.

Estimated Time: 10M Start: \_\_\_\_\_ Finish: \_\_\_\_\_ Time Req: \_\_\_\_\_

Time Limit: 12M #Times Performed: \_\_\_\_\_ Last Performed: \_\_\_\_\_

Tools and Equipment: PUB: NAVAIR 02B-105AGD-6-1 WP 147 00,  
Lockwire, Safety Pliers or Duckbill Pliers, Wire Cutters.

Background Information: One person task.

Engine Configuration: Exciter box (main ignition unit) on the engine.

Instructions:

Administer in the shop in conjunction with the installation of the exciter box (Task 363, Phase I). The incumbent may use the PUB. Instructions to the incumbent are included in the 363 instructions. Record the time for the installation of the lockwire separately from the time for the installation of the exciter box.

SAY TO THE INCUMBENT

USING PUB NAVAIR 02B-105AGD-6-1 WP 147 00, INSTALL LOCKWIRE ON THE EXCITER BOX INPUT LEAD.

Performed or Answered Correctly	Yes	No
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Did the incumbent:

1. Insert the proper gauge wire according to the drill diameter of the hardware? \_\_\_\_\_
2. Ensure that the wire was under proper tension after the wire was completely installed? \_\_\_\_\_
3. Ensure that the lockwire was pulling in a tightening direction? \_\_\_\_\_
4. Install the lockwire so that neither the wire nor its adjacent parts were subject to wear and tear? \_\_\_\_\_

Performed or Answered Correctly	Yes	No
5. Ensure that nicked, kinked, or mutilated lockwire was not installed?	—	—
6. Ensure that the cut off ends did not fall into the engine or retrieve ends that did fall into the engine?	—	—
7. Leave at least three full twists when cutting the lockwire at the end of a series?	—	—
8. Bend the remaining tang (end of lockwire) into the part to avoid sharp or projecting ends that might present a safety hazard?	—	—
9. Ensure that the lockwire was attached to the proper connecting points?	—	—
10. Use the correct tools and materials?	—	—

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's ability to rig J-79 engine afterburner nozzle assemblies.

Estimated Time: 25M Start: \_\_\_\_\_ Finish: \_\_\_\_\_ Time Req: \_\_\_\_\_

Time Limit: 30M #Times Performed: \_\_\_\_\_ Last Performed: \_\_\_\_\_

Tools and Equipment: PUB: NAVAIR 02B-105AGD-6-1 WP 155 00, page 52, Tool Box, Rigging Kits, Pin 1C2754-8P1 and Gauge or T-Bar 1C3946-4, 0-150 inch-pound Torque Wrench, Tire, Nozzle Diameter Recorder (Pogo Stick), Nozzle Actuator Pressurizer (1C3569G1).

Background Information: A helper will be required to hold the tire (if used) when the incumbent measures across the trailing edges of the primary flaps and when adjusting the jam nuts. This test is good for Model 1 only.

Engine Configuration: The afterburner is completely installed with the nozzles closed to the rigging condition (22 5/16" plus or minus 1/16") using a nozzle actuator pressurizer. The jam nuts on the nozzle feedback cable and the temperature compensator cable are loose (backed off to eliminate tension on the cables).

Instructions:

Administer in the shop. Incumbent may use the PUB. Begin the evaluation with the measurement of the closed nozzle, (step 2 in the PUB).

SAY TO THE INCUMBENT

THE AFTERBURNER IS COMPLETELY INSTALLED WITH THE NOZZLES CLOSED TO THE RIGGING CONDITION. RIG THE ENGINE AFTERBURNER NOZZLE FEEDBACK CABLE AND THE TEMPERATURE COMPENSATORY CABLE USING PUB NAVAIR 02B-105AGD-6-1 WP 155 00 AS A GUIDE. BEGIN THE TASK WITH THE MEASUREMENT OF THE CLOSED NOZZLE. DO NOT LOCKWIRE THE RIGGING PORT PLUG AFTER INSTALLING IT INTO THE NOZZLE AREA CONTROL. NOTE THAT THE JAM NUTS ON THE REAR END OF THE NOZZLE FEEDBACK CABLE AND THE FORWARD END OF THE TEMPERATURE COMPENSATOR CABLE HAVE BEEN LOOSENERED. FOLLOW GENERAL MAINTENANCE PROCEDURES AT ALL TIMES. TELL ME IF YOU PLAN TO DEVIATE FROM THE PUB.

Performed or Answered Correctly	Yes	No
Did the incumbent:		
1. Ensure that the nozzles were closed to an average diameter of 22 5/16" plus or minus 1/16"?	—	—
2. Ensure that the nozzle was NOT in an elliptical shape when taking the four measurements?	—	—
3. Remove the rigging port plug before attempting to adjust the jam nuts?	—	—
4. Adjust the jam nut on the forward end of the temperature compensatory cable so the holes in the "A" side of the rigging gauge could accept the axis of the temperature compensator spring assembly?	—	—
5. Adjust the jam nuts on the rear end of the nozzle feedback cable so the rigging pin could be moved freely in and out of the rigging port on the nozzle area control?	—	—
6. Ensure that the "B" side of the rigging gauge accepted the axles of the temperature compensator spring assembly?	—	—
7. Torque the jam nut on the temperature compensating cable 27 to 35 inch-pounds?	—	—
8. Torque the jam nut on the feedback cable 27 to 35 inch-pounds?	—	—
9. Install an O-ring when reinstalling the rigging port plug?	—	—
10. Torque the rigging port plug 20-30 inch-pounds?	—	—
11. Use the correct tools and materials?	—	—

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's knowledge concerning the rigging of J-79 engine inlet guide vane systems.

Estimated Time: 10M Start: Finish: Time Req:

Time Limit: 15M #Times Performed: Last Performed:

Tools and Equipment: PUB: NAVAIR 02B-105AGD-6-1 WP 152 00

Background Information: N/A

Engine Configuration: N/A

Instructions:

Administer in the shop in view of the inlet guide vane rigging components. The incumbent may NOT use the PUB.

SAY TO THE INCUMBENT

I AM GOING TO ASK YOU SOME QUESTIONS ABOUT RIGGING INLET GUIDE VANE SYSTEMS. YOU WILL NOT BE ALLOWED TO USE THE PUB AS A REFERENCE, BUT THE RIGGING COMPONENTS WILL BE AVAILABLE FOR YOU TO VIEW WHEN ANSWERING THE QUESTIONS.

	Performed or Answered Correctly	Yes	No
1.	What might happen if the cable is allowed to snap back during the rigging procedure? ANSWER: The fuel control could be damaged.	—	—
2.	What is the reason for performing a cable pull check? ANSWER: To determine if there is binding along the cable.	—	—
3.	When adjusting the micro-adjust unit, should the rigging pin enter freely or fit snugly? ANSWER: The pin should enter and fall out freely.	—	—

	Performed or Answered Correctly	Yes	No
4.	What might happen if the jam nuts holding the micro-adjust unit in place are not tight while the engine is in operation? ANSWER: Vibration could cause the rigging to change.	—	—
5.	After rigging the IGV, why must the distance between each jam nut and connector on the micro adjust be 7/32 of an inch or less? ANSWER: To catch the minimum thread engagement on the turn coupling.	—	—
6.	Should you secure the conduit coupling nut, jam nut, and swivel assembly in a continuous safety wire procedure or wire each individually? ANSWER: Lockwire continuously.	—	—
7.	Why do you need to hold the micro-adjustment unit with the 9/16" wrench when torquing the jam nuts to 50-60 inch-pounds? ANSWER: To keep the micro-adjustment unit from rotating which would cause a change in the rigging.	—	—

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's knowledge concerning the isolation of J-79 engine fuel system malfunctions when there is low fuel flow and the starting speed is reached but there is not start.

Estimated Time: 10M Start: \_\_\_\_\_ Finish: \_\_\_\_\_ Time Reg: \_\_\_\_\_

Time Limit: 15M #Times Performed: \_\_\_\_\_ Last Performed: \_\_\_\_\_

Tools and Equipment: PUB: NAVAIR 01 245DF-2-3.5 WP 004 00,  
page 8.

Background Information: N/A

Engine Configuration: N/A

Instructions:

Administer in the shop with the engine in view. The incumbent may NOT use the PUB. Incumbent may look at the malfunction systems list to answer questions.

SAY TO THE INCUMBENT

I AM GOING TO ASK YOU SOME QUESTIONS ABOUT ISOLATING ENGINE FUEL SYSTEM MALFUNCTIONS. YOU WILL NOT BE ALLOWED TO USE THE PUB AS A REFERENCE.

Performed or Answered Correctly

Yes No

GIVE THE INCUMBENT THE MALFUNCTION SYSTEMS LIST.

1. What systems or components would you fault isolate if you have a situation where there is low fuel flow and the starting speed is reached but there is no light off?  
(Must answer four out of five for credit.)

ANSWER: Yes No

- a. Rigging system
- b. Main fuel manifold
- c. High pressure fuel filter
- d. Aircraft fuel boost pump
- e. Main fuel control

Performed or Answered Correctly	Yes	No
2. Why would you read the engine history data? (Must answer both for credit.)	—	—
ANSWER: a. To determine trends	Yes	No
b. To determine which component was last worked on.	—	—
3. What do you use to check the main fuel pump discharge pressure?	—	—
ANSWER: A direct reading gauge.		
4. How do you check to see if the boost pump is malfunctioning?	—	—
ANSWER: Look to see if there is a PSI reading in the cockpit.		
5. When checking the main fuel pump discharge pressure, what do you hook the direct pressure gauge to within the fuel system?	—	—
ANSWER: To the high pressure fuel filter.		
6. What would normally be the last component that you would check to isolate the fuel system malfunction?	—	—
ANSWER: The Main Fuel Control.		

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's knowledge concerning the determination of high oil consumption on J-79 engines.

Estimated Time: 15M Start: \_\_\_\_\_ Finish: \_\_\_\_\_ Time Req: \_\_\_\_\_

Time Limit: 20M #Times Performed: \_\_\_\_\_ Last Performed: \_\_\_\_\_

Tools and Equipment: PUB: NAVAIR 01-245DE-2-3.3 WP 010 00,  
page 4

Background Information: N/A

Engine Configuration: N/A

Instructions:

Administer in the shop in a quiet place. The incumbent may use the PUB except when indicating the oil path flow.

SAY TO THE INCUMBENT

I AM GOING TO ASK YOU SOME QUESTIONS ABOUT J-79 ENGINE OIL CONSUMPTION. YOU MAY USE PUB NAVAIR 01-245DE-2-3.3 WP 010 00 AS A GUIDE WHEN ANSWERING THESE QUESTIONS EXCEPT FOR THE FIRST QUESTION WHICH DEALS WITH THE OIL FLOW PATH.

Performed or Answered Correctly	Yes	No
1. Beginning and ending at the oil tank and omitting the hydraulic paths, tell me the path that the oil flows through the following components: main lub pump, filter, oil cooler, internal bearing areas (#1,2,3) and sump, oil tank, scavenge pump, oil tank.	—	—

ANSWER: Incumbent's Order 1-7

a. Oil Tank	
b. Main Lub Pump	
c. Filter	
d. Internal Bearing Areas and Sump	
e. Scavenge Pump	
f. Oil Coolers (air oil cooler then fuel oil cooler)	
g. Oil Tank	

Performed or Answered Correctly		Yes	No
2.	After checking the oil servicing, what is the next thing that you should check for when determining high oil consumption?	—	—
	ANSWER: Leaks in the components.		
3.	Would you suspect an internal or an external problem if you found oil on the engine bay doors?	—	—
	ANSWER: External problem.		
4.	Where would the oil go if you overserviced the engine oil system?	—	—
	ANSWER: Overboard vent line.		
5.	What is the maximum amount of oil that is allowed to be consumed after an oil consumption check?	—	—
	ANSWER: One-half (1/2) pint.		
6.	Which level of maintenance has the responsibility to repair an internal oil leak?	—	—
	ANSWER: IMA (Shop).		
7.	Which level of maintenance has the responsibility to repair an external oil leak such as the main lub pump?	—	—
	ANSWER: OMA (Flightline) engine mechanic.		
8.	Besides the rear scavenge cavity, where else would you suspect oil to be coming from if you found oil in the exhaust area? (Must answer both for credit.)	—	—
	ANSWER: a. Number 3 bearing area b. Popit valve/Shut-off valve	Yes	No
		—	—
		—	—

Performed or Answered Correctly		Yes	No
9.	What is the source for determining when the oil system was last serviced? (Must answer one for credit)	—	—
	ANSWER:	Yes	No
a.	Read the aircraft forms.	—	—
b.	Read the oil service log.	—	—
10.	What two basic pieces of information would you need to determine whether or not you had an excessive oil consumption condition? (Must answer both for credit.)	—	—
	ANSWER:	Yes	No
a.	The number of flying hours.	—	—
b.	The number of quarts of oil serviced.	—	—
11.	How would you obtain the number of flying hours and the number of quarts of oil serviced? (Must answer one for credit)	—	—
	ANSWER:	Yes	No
a.	Read the aircraft forms.	—	—
b.	Read the oil service log.	—	—
c.	Read the maintenance control form.	—	—

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

Objective: To evaluate the incumbent's knowledge concerning the installation of J-79 engine constant speed drives (CSD).

Estimated Time: 15M Start: Finish: Time Req:

Time Limit: 20M #Times Performed: Last Performed:

Tools and Equipment: PUB: NAVAIR 01 245FDE-2-4.3 WP 017 00,  
CSD Assembly.

Background Information: N/A

Engine Configuration: N/A

Instructions:

Administer in the shop with a constant speed drive in view. The incumbent may NOT use the PUB.

SAY TO THE INCUMBENT

I AM GOING TO ASK YOU SOME QUESTIONS ABOUT INSTALLING CONSTANT SPEED DRIVES. YOU MAY NOT USE THE PUB BUT YOU MAY USE THE ENGINE AND CONSTANT SPEED UNIT AS A POINT OF REFERENCE WHEN ANSWERING THE QUESTIONS AND EXPLAINING ANY PROCEDURES THAT YOU SHOULD FOLLOW.

	Performed or Answered Correctly	Yes	No
1.	Where is the guillotine (mouse trap) located on the KVA 30 CSD? ANSWER: At the CSD 6 o'clock position.	—	—
2.	In what position should the generator drain and terminal board be when the CSD unit is correctly installed? ANSWER: At the 6 o'clock position.	—	—
3.	What action can you take to ensure that the CSD unit has been installed correctly? ANSWER: Turn the compressor to ensure that the mechanism moves freely.	—	—

SAY TO THE INCUMBENT

WITHOUT THE USE OF THE PUB, TELL ME STEP BY STEP HOW YOU SHOULD INSTALL A KVA 30 CONSTANT SPEED DRIVE UNIT IN AN AIRCRAFT WHEN UTILIZING A CROWN SPINE SHAFT AND A PLASTIC ADAPTER. BE SURE TO INCLUDE ALL SAFETY PRECAUTIONS THAT YOU SHOULD FOLLOW. YOU MAY USE THE ENGINE, CSD, OR ANY TOOLS THAT YOU WOULD NORMALLY USE TO SHOW ME HOW THE CSD SHOULD BE INSTALLED.

Performed or Answered Correctly	Yes	No
Did the incumbent say he/she should:		
4. Ensure that either a safety strut was installed or the 81 door was disconnected prior to attempting the installation?	—	—
5. Ensure that there was no power on the aircraft?	—	—
6. Ensure that the transfer gearbox female spline, spline adapter, and mating portion of the input shaft were clean and free of lubricant?	—	—
7. Ensure that the adapter was installed correctly?  Engage the splined drive and slide the generator-drive assembly over the studs on the mounting pad?	—	—
9. Install one washer on each stud?	—	—
10. Torque the nuts sequentially?	—	—
11. Connect the oil drain lines to the generator and drive unit?	—	—
12. Connect the electrical connector to the drive unit?	—	—

Performed or Answered Correctly?	Yes	No
13. Secure the electrical connector with lockwire?	—	—
14. Ensure that the lines were not damaged during the CSD installation?	—	—
15. Ensure that the terminal board was not damaged?	—	—

STOP TIME: \_\_\_\_\_

NOTE: TURN PAGE FOR RATING SCALE

OVERALL PERFORMANCE

- 5 Far exceeded the acceptable level of proficiency
- 4 Somewhat exceeded the acceptable level of proficiency
- 3 Met the acceptable level of proficiency
- 2 Somewhat below the acceptable level of proficiency
- 1 Far below the acceptable level of proficiency

NAVY/MARINE CORPS WTPT OMA ANSWER SHEET

Last Name,	First	MI	SSN			
Date	Base	Branch N/MC	Administrator			
START	I R1	H R1	I R2	I134	H134	<u>H134</u> CONT
FINISH	—	—	—	—	—	—
TIME REQ	—	—	—	—	—	—
# TIME	—	—	—	—	—	—
LAST PERF	—	—	—	—	—	—
1.	1.	1.	1.	1.	18.	
2.	2.	2.	2.	2.	19.	
3.	3.	3.	3.	3.	20.	
4.	4.	4.	4.	4.	21.	
5.	5.	5.	5.	5.	22.	
6.	6.	6.	6.	6.	23.	
7.	7.	7.	7.	7.	24.	
8.	8.	8.	8.	8.	25.	
9.	9.	9.	9.	9.	26.	
10.	10.	10.	OP. I134	10.	27.	
11.	11.	OP. I R2		11.	28.	
12.	12.			12.	29.	
13.	13.			13.	30.	
14.	14.			14.	31.	
15.	15.			15.	32.	
OP. I R1	16.			16.	33.	
OP. H R1				17.	34.	H134

NAVY/MARINE CORPS WTPT OMA ANSWER SHEET

START	H134 <u>CONTD</u>	H301	H302	H349	I353	H353
FINISH	_____	_____	_____	_____	_____	_____
TIME REQ	_____	_____	_____	_____	_____	_____
# TIME	_____	_____	_____	_____	_____	_____
LAST PERF	_____	_____	_____	_____	_____	_____
35.	1._____	1._____	1._____	1._____	1._____	1._____
36.	2._____	2._____	2._____	2._____	2._____	2._____
37.	3._____	3._____	3._____	3._____	3._____	3._____
38.	4._____	4._____	4._____	4._____	4._____	4._____
39.	5._____	5._____	5._____	5._____	5._____	5._____
40.	6._____	6._____	6._____	6._____	6._____	6._____
41.	7._____	7._____	7._____	7._____	7._____	7._____
42.	8._____	OP. H302	8._____	OP. I353	OP. H353	
43.	9._____		9._____			
44.	10._____			OP. H349		
45.	11._____					
46.	12._____					
OP. H134	13._____					
	OP. H301					

## NAVY/MARINE CORPS WTPT OMA ANSWER SHEET

	I360	H360	I363	I373	H373	H385
START	_____	_____	_____	_____	_____	_____
FINISH	_____	_____	_____	_____	_____	_____
TIME REQ	_____	_____	_____	_____	_____	_____
# TIME	_____	_____	_____	_____	_____	_____
LAST PERF	_____	_____	_____	_____	_____	_____
	1. _____	1. _____	1. _____	1. _____	1. _____	1. _____
	2. _____	2. _____	2. _____	2. _____	2. _____	2. _____
	3. _____	3. _____	3. _____	3. _____	3. _____	3. _____
	4. _____	4. _____	4. _____	4. _____	4. _____	4. _____
	5. _____	5. _____	5. _____	5. _____	5. _____	5. _____
	6. _____	6. _____	6. _____	6. _____	6. _____	6. _____
	7. _____	OP. _____ H360	7. _____	7. _____	7. _____	6. _____
	8. _____		8. _____	8. _____	8. _____	8. _____
	9. _____		9. _____	9. _____	9. _____	9. _____
	OP. _____ I360	OP. _____ H363	10. _____	10. _____	10. _____	
			11. _____	OP. _____ H373	11. _____	
			OP. _____ I373		OP. _____ H385	

NAVY/MARINE CORPS WTPT OMA ANSWER SHEET

	H387	I319	I325	I351
START	_____	_____	_____	_____
FINISH	_____	_____	_____	_____
TIME REQ	_____	_____	_____	_____
# TIME	_____	_____	_____	_____
LAST PERF	_____	_____	_____	_____
	1. _____	1. _____	1. _____	1. _____
	2. _____	2. _____	2. _____	2. _____
	3. _____	3. _____	3. _____	3. _____
	4. _____	4. _____	4. _____	4. _____
	5. _____	5. _____	5. _____	5. _____
	6. _____	6. _____	6. _____	6. _____
	7. _____	OP. _____ I319	7. _____	7. _____
OP. _____ H387		8. _____	8. _____	
		9. _____	9. _____	
		10. _____	10. _____	
		11. _____	11. _____	
		OP. _____ I325	12. _____	
			13. _____	
			14. _____	
			15. _____	
			OP. _____ I351	

No. NCL 8057

COPY 3

**MAINTENANCE/PRODUCTION CONTROL VIDS REGISTER COPY**  
**VIDS/MAF OPNAV 4790/60 (REV. 2-82) S/N 0107-LF-047-9304**

**5 PART FORM**  
**USE BALL-POINT PEN PRESS HARD**

**ENTRIES REQUIRED SIGNATURE**

NONE LOGS RECD

**APPENDIX J**

**JOB KNOWLEDGE TEST**  
**FOR**  
**NAVY/MARINE CORPS J-79 JET ENGINE MECHANICS**  
**AT THE**  
**INTERMEDIATE MAINTENANCE ACTIVITY (IMA)**

## EXAMINEE INSTRUCTIONS

This set of job knowledge tests requires you to identify components and the procedures that you would normally follow when removing, installing, or rigging certain components.

Using pictures as a reference point, you will be asked to select a picture that contains a specific component or to identify several components or procedures within a picture. You will be given a list of actions and asked to select the actions you should take when performing a specific task. In addition, you will be asked to match correct responses to a series of questions or statements.

In all cases you will be asked to write your answers on an answer sheet separate from this booklet. Please be sure to write your complete name and SSN at the top of the answer sheet. Read each question or statement carefully and write your answer to each item in the designated space on the answer sheet.

While the results of this test will not effect your ratings, we ask that you work independently and do the best you can.

**TASK 373: Install Lockwire.**



**SCENARIO FOR TASK 373: You have been instructed to install lockwire on the split line bolts.**

1. From the list below, select the actions or checks that you should take when installing lockwire on the split line bolts. Place a checkmark in the yes column of the answer sheet if you should perform the action. Place a checkmark in the no column if you should not perform the action.

- (I001) Insert the proper gauge wire according to the drill diameter of the hardware.
- (I002) Start the lockwire over the split line bolt.
- (I003) Install lockwire so that neither the wire or its adjacent parts are subject to wear and tear.
- (I004) Ensure that nicked, kinked, or mutilated lockwire is not installed.
- (I005) Use 12 to 16 twists per inch.
- (I006) Leave at least two full twists when cutting the lockwire at the end.
- (I007) Leave the remaining tang (end of lockwire) straight.
- (I008) Ensure that the cut off ends do not fall into the engine (or retrieve ends that do fall into engine).
- (I009) Ensure that the wire is under proper tension after the wire is completely installed.

2. Using the letters on the picture to the left, match each lockwire procedure with its respective description below. Write the matching letter on the answer sheet.

- (I010) Loose lockwire.
- (I011) Bolt wired so wire is pulling in a loosening direction.
- (I012) Lockwire safety violation.
- (I013) Insufficient twists between bolts.
- (I014) Neutral safety.
- (I015) Bolt wired so wire is pulling in a tightening direction.

**TASK R1: Install Pressurizing and Drain Valves**



**SCENARIO FOR TASK R1:** You have been instructed to install a pressurizing and drain (P&D) valve on the engine. The main oil cooler, compressor rear frame bracket and lines are already on the engine.

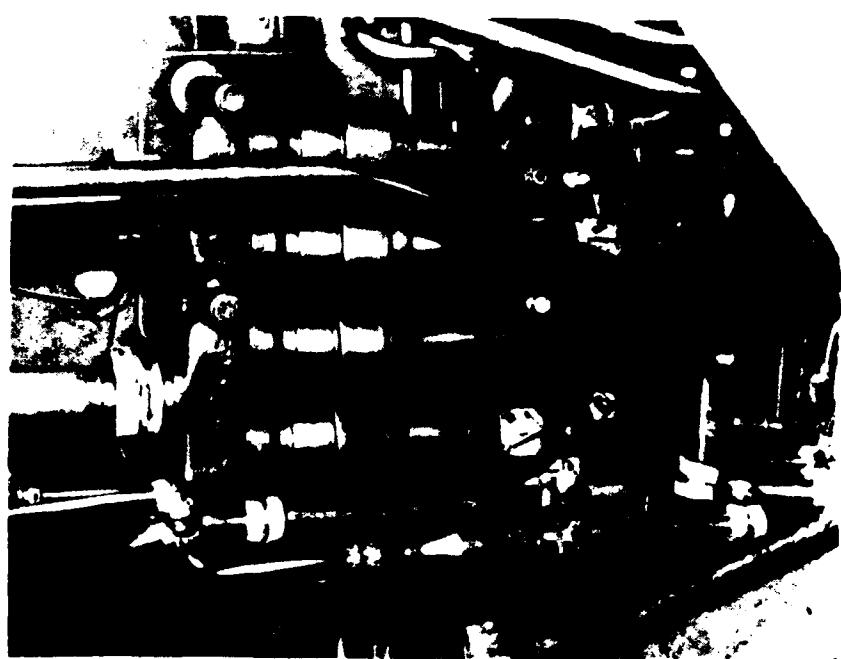
3. (I016) Which component on the picture to the left is the pressurizing and drain (P&D) valve? Write the matching letter on the answer sheet.

4. From the list below, select the actions or checks that you should take when installing the P&D valve. Place a checkmark in the yes column of the answer sheet if you should perform the action. Place a checkmark in the no column if you should not perform the action.

- (I017) Lubricate the O-rings and seal with graphite grease prior to installation.
- (I018) Install elbows, jam nuts, and O-rings on the large outlet and rear ports.
- (I019) Leave the jam nuts finger tight until after the fuel manifolds are installed.
- (I020) Install a clamp bracket between the P&D valve and the main oil cooler.
- (I021) Install the valve in the correct position with the ports facing the appropriate lines.
- (I022) Torque the four bolts holding the valve to the main oil cooler.
- (I023) Safety wire all four bolts together in one series.
- (I024) Install two bolts to secure the valve to the rear mounting bracket which is mounted on the compressor rear frame forward flange.
- (I025) Install an O-ring, drain tube, O-ring, and connector bolt (in that order) in the drain port.
- (I026) Torque the two bolts securing the valve to the rear mounting bracket.
- (I027) Position the two large elbows to the rear and use a common screwdriver to align the fittings when installing the fuel manifolds.
- (I028) Torque the jam nuts and manifolds and lockwire.
- (I029) Position the rear elbow and install the reference fuel pressure manifold tube.
- (I030) Torque the jam nut and tube coupling and lockwire.

**TASK R2: Install Afterburner Fuel Pressurizing Valves**

**A**



**B**



**SCENARIO FOR TASK R2:** You have been instructed to install the afterburner fuel pressurizing valve. The afterburner fuel pressure angle bracket (ECP 79E394) is on the engine. The forward core and annulus tube connectors and clamps are loose. The four fuel outlet tubes are installed, and the PPC155 modification has been made.

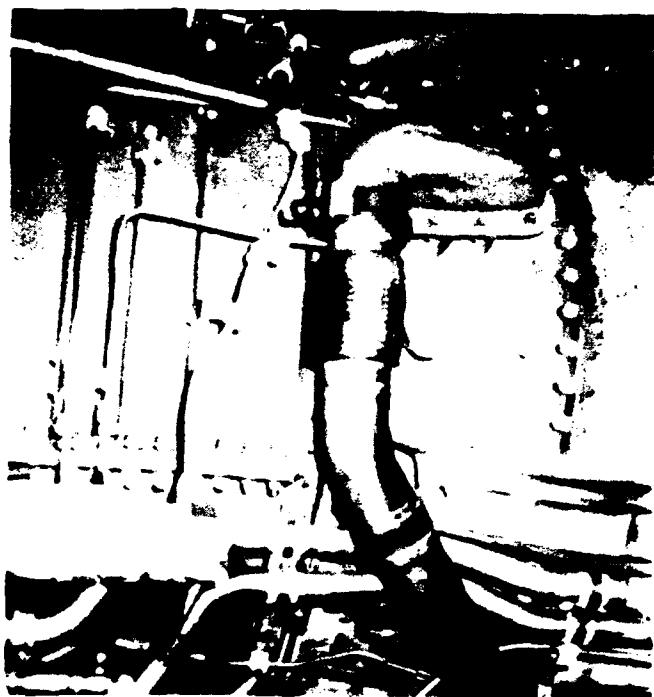
5. (I031) Which of the pictures (A or B) to the left shows the afterburner Fuel Pressurizing Valve? Write the matching letter on the answer sheet.

6. From the list below, select the actions or checks you should take when installing the afterburner fuel pressurizing valve. Place a checkmark in the yes column of the answer sheet if you should perform the action. Place a checkmark in the no column if you should not perform the action.

- (I032) Connect the core and annulus supply tubes to the valve prior to installing the valve.
- (I033) Install the valve to the mounting bracket using two bolts, six washers, and two nuts.
- (I034) Install the two mounting bolts with their heads facing up.
- (I035) Leave the two mounting bolts finger tight until all connections are made.
- (I036) Steady the valve by using a large screwdriver or pry bar when torquing the supply core and annulus fuel tubes.
- (I037) Torque the tubes at the valve and the connectors.
- (I038) Tighten the three tube clamp groups.
- (I039) Hold each of the four valve outlet connectors with a wrench while torquing the four outlet tube B-nuts.
- (I040) Torque the four outlet tube B-nuts.
- (I041) Torque the valve mounting bolts.

**TASK 353: Install the top anti-icing manifold (duct).**

**A**



**B**



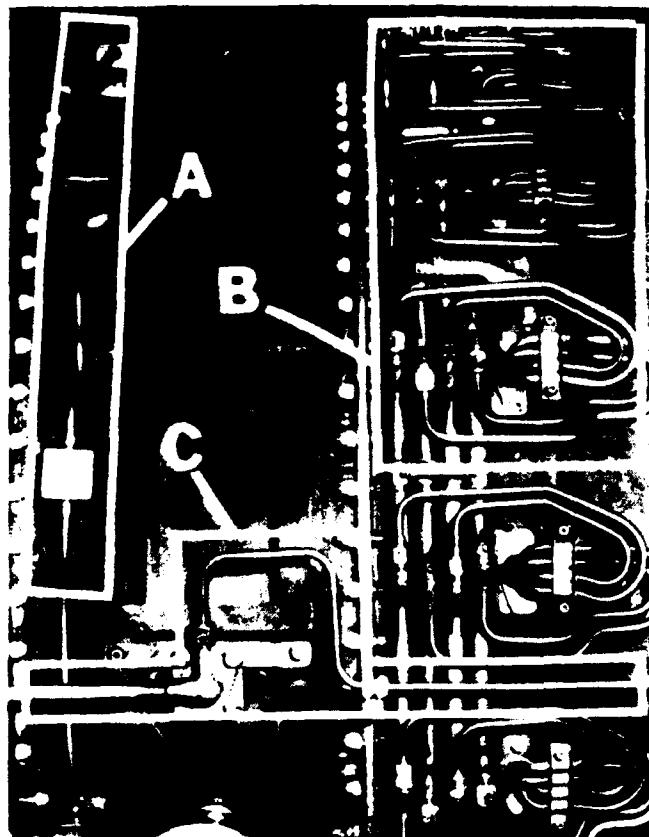
**SCENARIO FOR TASK 353: You have been instructed to install the forward top anti-icing manifold (duct).**

7. (I042) Which of the two pictures (A or B) to the left shows the anti-icing duct. Write the matching letter on the answer sheet.

8. From the list below, select the actions or checks that you should take to install the forward top anti-icing manifold (duct). Place a checkmark in the yes column of the answer sheet if you should perform the action. Place a checkmark in the no column if you should not perform the action.

- (I043) Ensure that all covers, plugs, and caps are removed before installing the duct.
- (I044) Connect and torque all tubing prior to connecting the center duct.
- (I045) Apply lubricant to the front pads between the gaskets and the air duct.
- (I046) Place gaskets between the front pads and the air ducts.
- (I047) Secure the air ducts with four bolts and washers on each pad.
- (I048) Lockwire the four bolts together on each pad (in one connecting series).
- (I049) Install the bracket (which supports the CIT reference pressure line) between the flange and the gasket.
- (I050) Ensure that the parts are properly aligned and then torque the bolts and nuts in the following order:
  - a. Forward duct to frame
  - b. Forward duct to center duct
- (I051) Attempt to retrieve any foreign objects that are dropped into the engine.

**TASK 360: Install the engine exhaust gas temperature thermocouple harness.**



**SCENARIO FOR TASK 360:** You have been instructed to install the exhaust gas thermocouple harness.

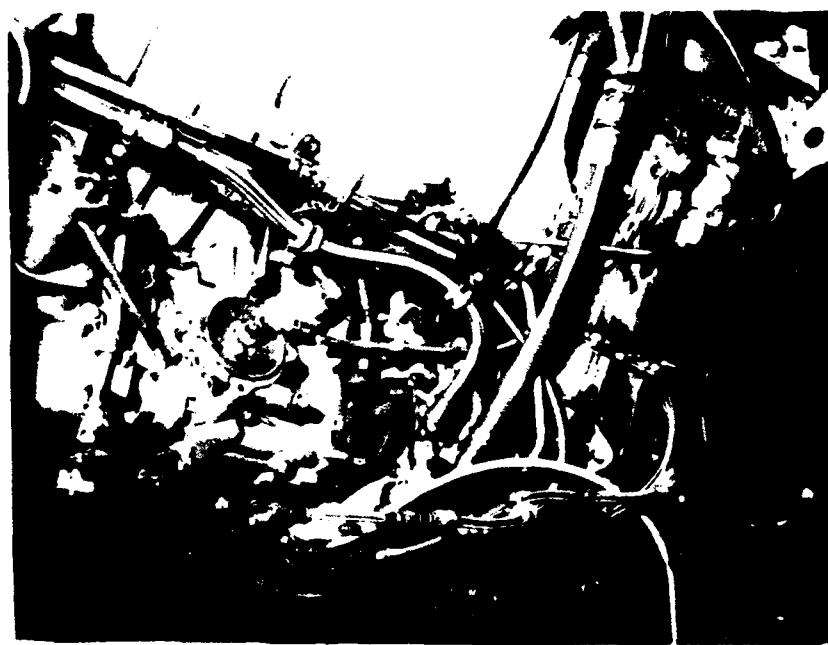
9. (I052) Which of the components (A,B,C) in the picture to the left is the EGT thermocouple harness. Write the matching letter on the answer sheet.

10. From the list below, select the actions or checks that you should take when installing the EGT thermocouple harness. Place a checkmark in the yes column of the answer sheet if you should perform the action. Place a checkmark in the no column if you should not perform the action.

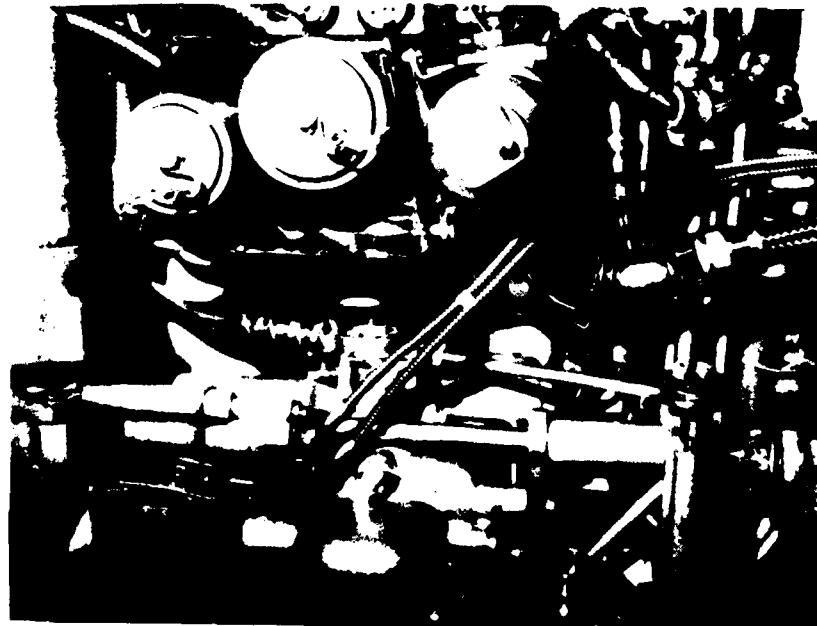
- (I053) Ensure that no burrs remain on the threads or mating surface of the turbine frame boss.
- (I054) Ensure that no lubricant ran into the filler material around the thermocouple loops at the ends of the probes.
- (I055) Apply a thin coating of lubricant on the threaded areas of each thermocouple boss on the turbine frame.
- (I056) Torque each nut as each probe is installed.
- (I057) Ensure that the harness did not bend causing the inside filament to be broken.
- (I058) Install a copper gasket between the top harness and the lead.
- (I059) Connect the forward end of each harness to the rigid thermocouple lead.
- (I060) Safety wire each thermocouple harness mounting boss to a turbine case flange bolt.

**TASK 387: Rig Inlet Guide Vane System**

**A**



**B**



**SCENARIO FOR TASK 387:** You have been instructed to rig the Inlet Guide Vane System. The IGV feedback cable has been inspected and installed. The IGV is open and set at 19° 30". The turn buckle on the microadjust is centered. The sheave box is disengaged from the main fuel control.

11. (I061) Which of the two pictures (A or B) to the left shows the IGV system adjustment components? Write the matching letter on the answer sheet.

12. From the list below, select the actions you should take to rig the IGV system. Place a checkmark in the yes column of the answer sheet if you should perform the action. Place a checkmark in the no column if you should not perform the action.

#### CLUTCH ENGAGEMENT

- (I062) Remove the rig pin port plug.
- (I063) Insert an Allen Wrench in the feedback shaft.
- (I064) Rotate the shaft approximately 3/4 turn counterclockwise against the spring tension.
- (I065) Insert the rigging pin to hold the shaft at the rig position.
- (I066) Insert a screwdriver under the locknut to gently pry the shaft outward to assist engagement.
- (I067) If the sheave box clutch teeth do not engage, loosen the jam nuts on the microadjust unit and turn the coupling until the sheave clutch teeth engage.
- (I068) Torque the locknut on the sheave box before removing the rigging pin.
- (I069) Remove the rigging pin.

#### CLUTCH ENGAGEMENT CHECK

- (I070) Hold the feedback shaft with an Allen Wrench.
- (I071) Using a lead pencil, mark one flat on the locknut.
- (I072) Loosen the lock nut 1/2 turn.
- (I073) With the Allen Wrench inserted in the feedback shaft, push in and attempt to rotate the shaft in both directions.
- (I074) Ensure that the shaft will turn more than the clutch teeth backlash permits.
- (I075) Hold the shaft with the Allen Wrench and torque the lock nut.

#### INSPECTION FOR FEEDBACK CABLE BINDING

- (I076) Remove the rod-end bearing retaining nut from the first stage bell crank clevis bolt.
- (I077) Snap the cable back to ensure that the spring is loaded.
- (I078) Reinstall the rod end bearing on the clevis bolt.
- (I079) Secure the bearing with a retaining nut.

#### RIG CHECK

- (I080) Insert a rig pin to the port hole.
- (I081) Adjust the microadjust until the rig pin fits snugly and will not move easily.
- (I082) Remove the rig pin.
- (I083) Torque the microadjust jam nuts.
- (I084) Measure the distance between each jam nut and connector to ensure the limits do not exceed the limits in the PUB.
- (I085) Assemble a status seal on the rigging port plug and install in the rigging port.

#### SECURE SYSTEM

- (I086) Bend a tab of the tabwasher against the locknut corner to secure the locknut to the feedback shaft.
- (I087) Lockwire the microadjust and all the sheave box mounting bolts together in one series.



**SCENARIO FOR TASK 134:** You have been instructed to complete a VIDS/MAF to indicate that work has been performed and parts have been ordered.

13. Using the reproduction of a VIDS/MAF to the left as a reference point, select the statement in column II below that best answers each question in Column I. Write the matching letter on the answer sheets. (One answer will not be used.)

**I (Questions)**

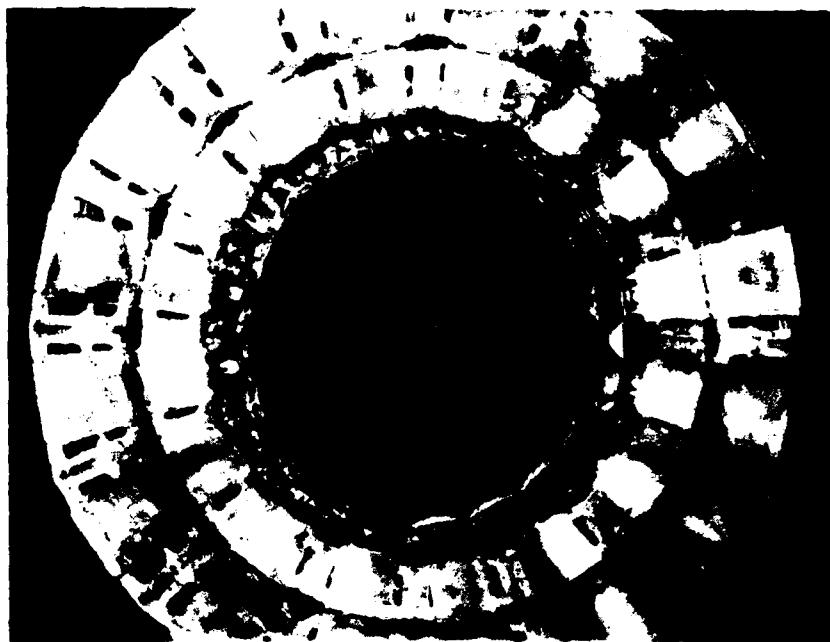
- (I088) What is the purpose of the VIDS/MAF?
- (I089) Under what condition would a supply document number entry be made in Block 49?
- (I090) When working in the shop (IMA) in which block do you note that an item has been repaired by replacing a part?
- (I091) What is the purpose of the job control number?
- (I092) What do the numbers in Block A11 DAY represent?
- (I093) What does the work center entry in Block A19 represent?
- (I094) What entry on the form identifies the part on which the work is being performed?
- (I095) Who completes the inspected by block?
- (I096) How can you tell that a part has been ordered?

**II (Answers)**

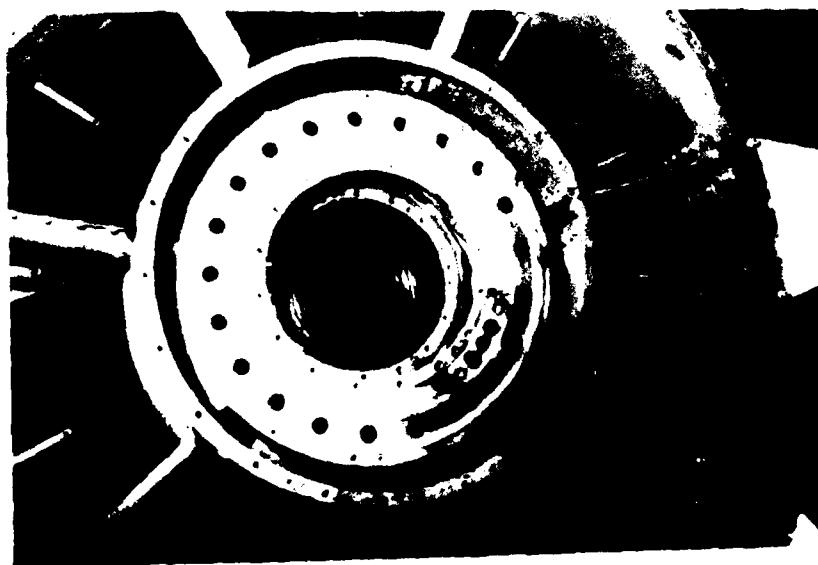
- A. The Julian date
- B. Aircraft Maintenance Officer
- C. Removed Old Item
- D. Process Repairs & Controls (To follow the parts through the repair process)
- E. Look at the DOC No. Block
- F. When a demand has been placed on the test cell to perform a bench check on the replacement item.
- G. Control and Identify the maintenance jobs
- H. Where the individual who is doing the work is assigned.
- I. Where the work is being performed.
- J. Corrective Action Block
- K. The CDI or the QA Inspector
- L. When a demand has been placed on the supply system for a like item as a replacement

**TASK 238: Install the number three (3) bearings.**

**A**



**B**



SCENARIO FOR TASK 238: You have been instructed to install the number three (3) bearings.

14. (I097) Which of the two pictures (A or B) to the left shows the number three (3) bearings? Write the matching letter on the answer sheet.

15. From the list below, select the actions or checks you should take to install the number three bearings. Place a checkmark in the yes column of the answer sheet if you should perform the action. Place a checkmark in the no column if you should not perform the action.

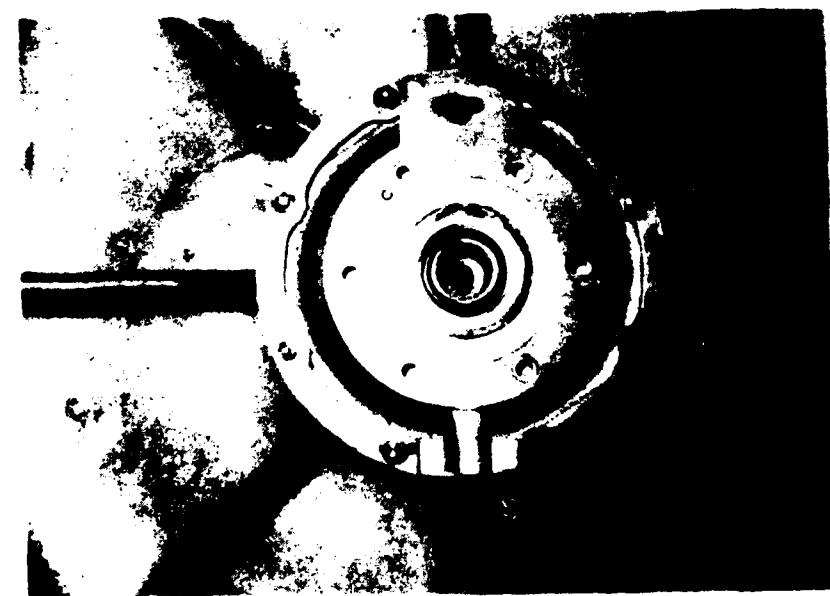
- (I108) Either wear gloves or protective cream when handling the bearings.
- (I109) Heat the bearing assembly before attempting to install the assembly.
- (I100) Ensure that the bearings are not damaged.
- (I101) Ensure that the bearings are centered.
- (I102) Install the snap ring on the forward side of the bearings.
- (I103) Ensure that the snap ring is securely seated in the turbine frame.
- (I104) Coat the number 3 bearing outer race retaining nut with lubricant.
- (I105) Ensure that the number 3 bearing outer race fit is tight after the parts reach room temperature.

**TASK 239: Install the engine forward and rear number three (3) oil seals.**

**A**



**B**



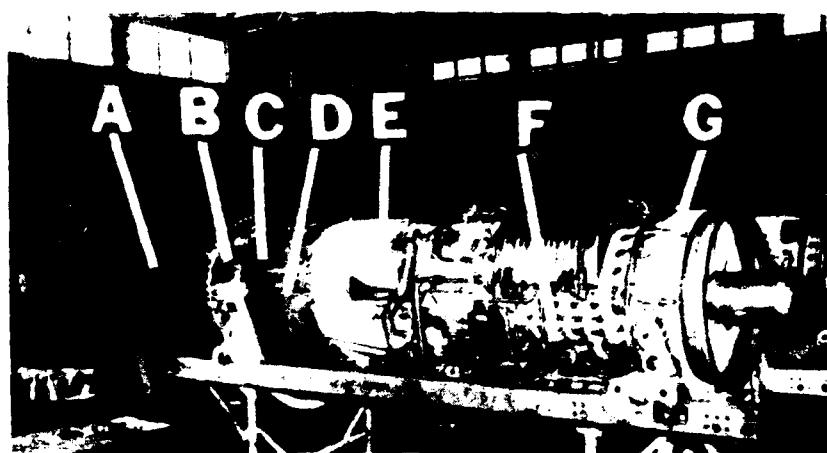
SCENARIO FOR TASK 239: You have been instructed to install the engine forward and rear number three (3) oil seals (carbon seals) and the rear air seals.

16. (I106) Which of the pictures (A or B) to the left shows the area where the rear number three (3) oil (carbon) seals are located? Write the matching letter on the answer sheet.

17. From the list below, select the actions you should take when installing the engine forward and rear number three (3) oil seals (carbon seals) and the rear air seals. Place a checkmark in the yes column of the answer sheet if you should perform the action. Place a checkmark in the no column if you should not perform the action.

- (I107) Install the concentricity (run out) gauge.
- (I108) Match mark the spill baffle and air seal to the frame once the air seal is within limits.
- (I109) Ensure that the insulation blanket touches the vent tubes.
- (I110) Temporarily install the front oil seal.
- (I111) Perform a run out check on the front oil seal.
- (I112) Match mark the front oil seal.
- (I113) Remove the front oil seal.
- (I114) Temporarily install the rear oil seal.
- (I115) Use a rag to protect the carbon portion of the seal.
- (I116) Perform a run out check on the rear oil seal.
- (I117) Match mark the rear oil seal.
- (I118) Temporarily install the rear air seal.
- (I119) Perform a run out check on the rear air seal.
- (I120) Match mark the rear air seal.
- (I121) Remove the rear air seal.
- (I122) Remove the concentricity gauge.
- (I123) Permanently install the front oil seal, rear oil seal, and the rear air seal.
- (I124) Torque all bolts using a dry torque.

**TASK 247: Remove turbine section.**



**SCENARIO FOR TASK 247: You have been instructed to remove the turbine section.**

18. Using the letters on the picture to the left, select the letter that represents each section of the engine listed below. Write the matching letter on the answer sheet.

- (I125) Turbine Case
- (I126) Afterburner
- (I127) Inlet Case (Front Frame)
- (I128) Combustion Case
- (I129) Turbine Frame Assembly
- (I130) Compressor Case
- (I131) Forward Exhaust

19. From the list below, select the actions or checks that you should take when removing the turbine section from the engine. Place a checkmark in the yes column of the answer sheet if you should perform the action. Place a checkmark in the no column if you should not perform the action.

- (I132) Install the compressor lock in the front of the engine.
- (I133) Straighten the bent tab washer.
- (I134) Tighten the jack screws in a clockwise pattern when loosening the seal.
- (I135) Ensure that the baffle is not twisted while it is being taken off.
- (I136) Position the spider legs with the three mounting holes at the 7:30 and 5:30 locations.
- (I137) Ensure that the spider is pressing against the front locking nut.
- (I138) Ensure that the same numbered holes are used in each horizontal flange when installing the lift fixture brackets.
- (I139) Ensure that the wheel locking rods are properly positioned with the brass shoe against a turbine wheel.
- (I140) Align the slots in the lock ring and torque ring of the wrench.
- (I141) Turn the inner shaft counter clockwise until the marks on the inner shaft are aligned.
- (I142) Ensure that the wrench is locked to the turbine/compressor bolt by attempting to pull the wrench back.
- (I143) Ensure that the turbine section does not move either up or down while removing the turbine and combustion case bolts.
- (I144) Ensure that the turbine section is pulled straight back to avoid internal damage.
- (I145) Ensure that the wrench does not fall on the threads.
- (I146) Ensure that the rotor does not touch the floor.

**APPENDIX K**  
**JOB KNOWLEDGE TEST ANSWER SHEETS**  
**FOR**  
**NAVY/MARINE CORPS J-79 JET ENGINE MECHANICS**  
**AT THE**  
**INTERMEDIATE MAINTENANCE ACTIVITY (IMA)**

**JOB KNOWLEDGE TEST ANSWER SHEET FOR  
NAVY/MARINE CORPS J-79 JET ENGINE MECHANICS  
IMA**

Last Name	First	MI	SSN
1. Yes No	6. Yes No	12. Yes No	
I001 — —	I032 — —	I062 — —	
I002 — —	I033 — —	I063 — —	
I003 — —	I034 — —	I064 — —	
I004 — —	I035 — —	I065 — —	
I005 — —	I036 — —	I066 — —	
I006 — —	I037 — —	I067 — —	
I007 — —	I038 — —	I068 — —	
I008 — —	I039 — —	I069 — —	
I009 — —	I040 — —	I070 — —	
	I041 — —	I071 — —	
		I072 — —	
2. Letter Code	7. Letter Code	I073 — —	
I010 —	I042 —	I074 — —	
I011 —		I075 — —	
I012 —		I076 — —	
I013 —	8. Yes No	I077 — —	
I014 —	I043 — —	I078 — —	
I015 —	I044 — —	I079 — —	
	I045 — —	I080 — —	
	I046 — —	I081 — —	
3. Letter Code	I047 — —	I082 — —	
I016 —	I048 — —	I083 — —	
	I049 — —	I084 — —	
	I050 — —	I085 — —	
4. Yes No	I051 — —	I086 — —	
I017 — —		I087 — —	
I018 — —	9. Letter Code		
I019 — —	I052 —	13. Letter Code	
I020 — —		I088 — —	
I021 — —	10. Yes No	I089 — —	
I022 — —	I053 — —	I090 — —	
I023 — —	I054 — —	I091 — —	
I024 — —	I055 — —	I092 — —	
I025 — —	I056 — —	I093 — —	
I026 — —	I057 — —	I094 — —	
I027 — —	I058 — —	I095 — —	
I028 — —	I059 — —	I096 — —	
I029 — —	I060 — —		
I030 — —		14. Letter Code	
		I097 —	
5. Letter Code	11. Letter Code		
I031 —	I061 —		

JOB KNOWLEDGE TEST ANSWER SHEET FOR  
NAVY/MARINE CORPS J-79 JET ENGINE MECHANICS  
IMA (Cont'd)

15. Yes No 18. Letter Code

I1098	—	—	I125	—
I1099	—	—	I126	—
I1100	—	—	I127	—
I1101	—	—	I128	—
I1102	—	—	I129	—
I1103	—	—	I130	—
I1104	—	—	I131	—
I1105	—	—		

16. Letter Code

I106 —

19. Yes No

I132	—	—
I133	—	—
I134	—	—
I135	—	—
I136	—	—
I137	—	—
I138	—	—
I139	—	—
I140	—	—
I141	—	—
I142	—	—
I143	—	—
I144	—	—
I145	—	—
I146	—	—

17. Yes No

I107	—	—
I108	—	—
I109	—	—
I110	—	—
I111	—	—
I112	—	—
I113	—	—
I114	—	—
I115	—	—
I116	—	—
I117	—	—
I118	—	—
I119	—	—
I120	—	—
I121	—	—
I122	—	—
I123	—	—
I124	—	—

**APPENDIX L**  
**JOB KNOWLEDGE TEST**  
**FOR**  
**NAVY/MARINE CORPS J-79 JET ENGINE MECHANICS**  
**AT THE**  
**ORGANIZATIONAL MAINTENANCE ACTIVITY (OMA)**

## EXAMINEE INSTRUCTIONS

This set of job knowledge tests requires you to identify components and the procedures that you would normally follow when removing, installing, or rigging certain components.

Using pictures as a reference point, you will be asked to select a picture that contains a specific component or to identify several components or procedures within a picture. You will be given a list of actions and asked to select the actions you should take when performing a specific task. In addition, you will be asked to match correct responses to a series of questions or statements.

In all cases you will be asked to write your answers on an answer sheet separate from this booklet. Please be sure to write your complete name and SSN at the top of the answer sheet. Read each question or statement carefully and write your answer to each item in the designated space on the answer sheet.

While the results of this test will not effect your ratings, we ask that you work independently and do the best you can.

**TASK 373: Install Lockwire.**



**SCENARIO FOR TASK 373: You have been instructed to install lockwire on the split line bolts.**

1. From the list below, select the actions or checks that you should take when installing lockwire on the split line bolts. Place a checkmark in the yes column of the answer sheet if you should perform the action. Place a checkmark in the no column if you should not perform the action.

- (I001) Insert the proper gauge wire according to the drill diameter of the hardware.
- (I002) Start the lockwire over the split line bolt.
- (I003) Install lockwire so that neither the wire or its adjacent parts are subject to wear and tear.
- (I004) Ensure that nicked, kinked, or mutilated lockwire is not installed.
- (I005) Use 12 to 16 twists per inch.
- (I006) Leave at least two full twists when cutting the lockwire at the end.
- (I007) Leave the remaining tang (end of lockwire) straight.
- (I008) Ensure that the cut off ends do not fall into the engine (or retrieve ends that do fall into engine).
- (I009) Ensure that the wire is under proper tension after the wire is completely installed.

2. Using the letters on the picture to the left, match each lockwire procedure with its respective description below. Write the matching letter on the answer sheet.

- (I010) Loose lockwire.
- (I011) Bolt wired so wire is pulling in a loosening direction.
- (I012) Lockwire safety violation.
- (I013) Insufficient twists between bolts.
- (I014) Neutral safety.
- (I015) Bolt wired so wire is pulling in a tightening direction.

**TASK R1: Install Pressurizing and Drain Valves**



**SCENARIO FOR TASK R1:** You have been instructed to install a pressurizing and drain (P&D) valve on the engine. The main oil cooler, compressor rear frame bracket and lines are already on the engine.

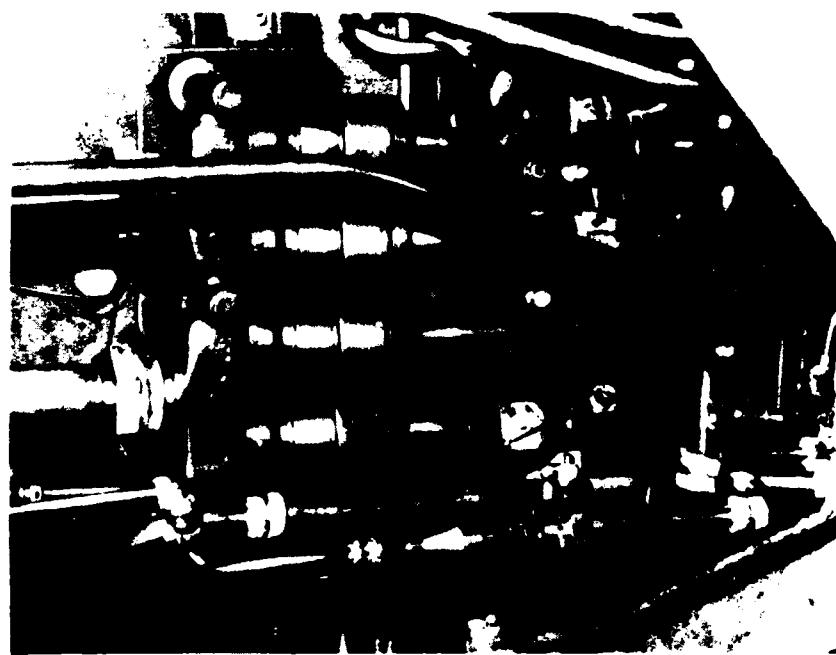
3. (I016) Which component on the picture to the left is the pressurizing and drain (P&D) valve? Write the matching letter on the answer sheet.

4. From the list below, select the actions or checks that you should take when installing the P&D valve. Place a checkmark in the yes column of the answer sheet if you should perform the action. Place a checkmark in the no column if you should not perform the action.

- (I017) Lubricate the O-rings and seal with graphite grease prior to installation.
- (I018) Install elbows, jam nuts, and O-rings on the large outlet and rear ports.
- (I019) Leave the jam nuts finger tight until after the fuel manifolds are installed.
- (I020) Install a clamp bracket between the P&D valve and the main oil cooler.
- (I021) Install the valve in the correct position with the ports facing the appropriate lines.
- (I022) Torque the four bolts holding the valve to the main oil cooler.
- (I023) Safety wire all four bolts together in one series.
- (I024) Install two bolts to secure the valve to the rear mounting bracket which is mounted on the compressor rear frame forward flange.
- (I025) Install an O-ring, drain tube, O-ring, and connector bolt (in that order) in the drain port.
- (I026) Torque the two bolts securing the valve to the rear mounting bracket.
- (I027) Position the two large elbows to the rear and use a common screwdriver to align the fittings when installing the fuel manifolds.
- (I028) Torque the jam nuts and manifolds and lockwire.
- (I029) Position the rear elbow and install the reference fuel pressure manifold tube.
- (I030) Torque the jam nut and tube coupling and lockwire.

**TASK R2: Install Afterburner Fuel Pressurizing Valves**

**A**



**B**



**SCENARIO FOR TASK R2:** You have been instructed to install the afterburner fuel pressurizing valve. The afterburner fuel pressure angle bracket (ECP 79E394) is on the engine. The forward core and annulus tube connectors and clamps are loose. The four fuel outlet tubes are installed, and the PPC155 modification has been made.

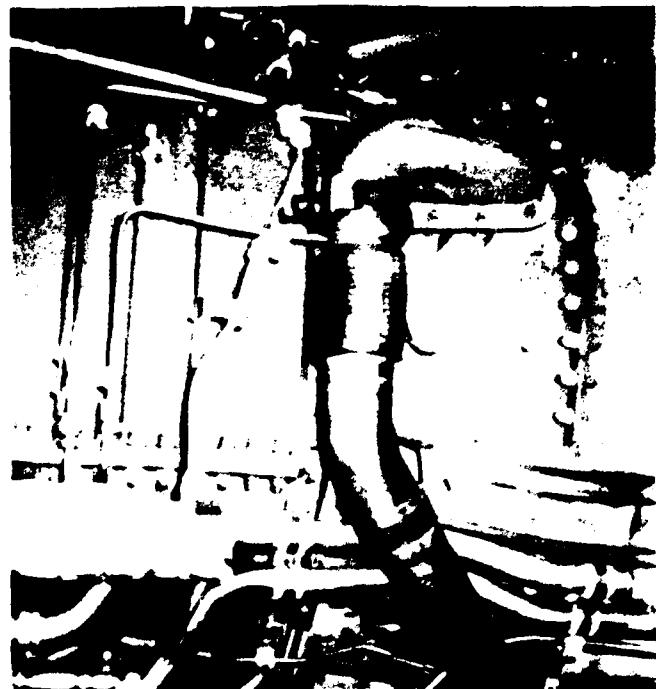
5. (I031) Which of the pictures (A or B) to the left shows the afterburner Fuel Pressurizing Valve? Write the matching letter on the answer sheet.

6. From the list below, select the actions or checks you should take when installing the afterburner fuel pressurizing valve. Place a checkmark in the yes column of the answer sheet if you should perform the action. Place a checkmark in the no column if you should not perform the action.

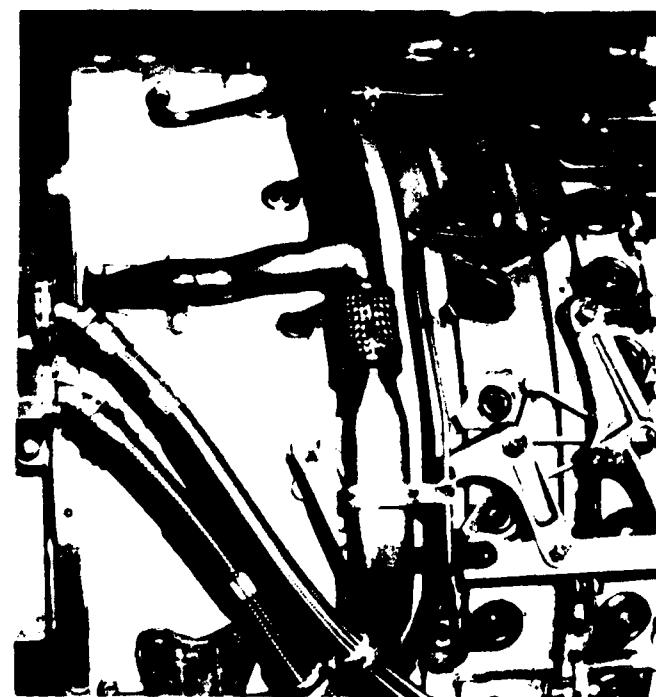
- (I032) Connect the core and annulus supply tubes to the valve prior to installing the valve.
- (I033) Install the valve to the mounting bracket using two bolts, six washers, and two nuts.
- (I034) Install the two mounting bolts with their heads facing up.
- (I035) Leave the two mounting bolts finger tight until all connections are made.
- (I036) Steady the valve by using a large screwdriver or pry bar when torquing the supply core and annulus fuel tubes.
- (I037) Torque the tubes at the valve and the connectors.
- (I038) Tighten the three tube clamp groups.
- (I039) Hold each of the four valve outlet connectors with a wrench while torquing the four outlet tube B-nuts.
- (I040) Torque the four outlet tube B-nuts.
- (I041) Torque the valve mounting bolts.

**TASK 353: Install the top anti-icing manifold (duct).**

**A**



**B**



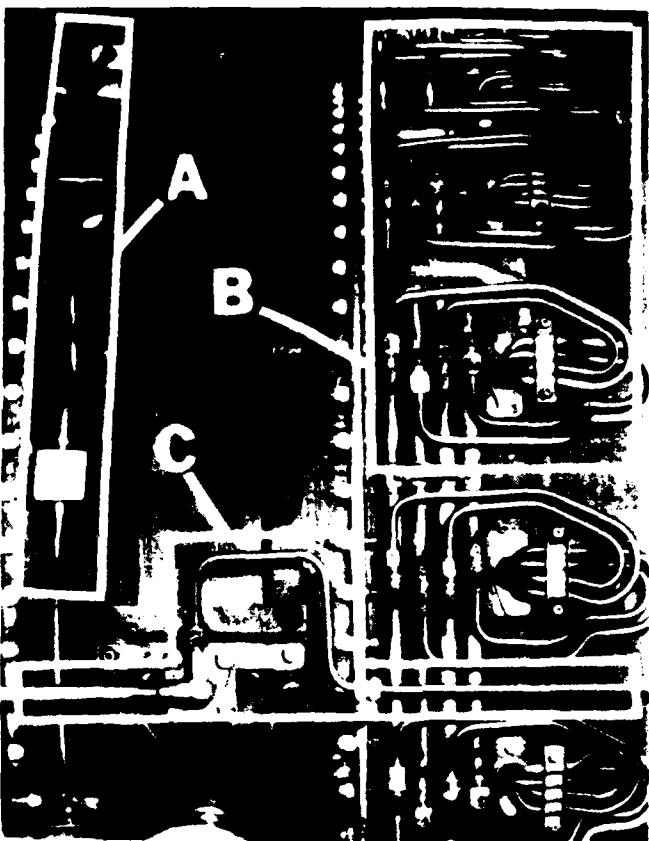
**SCENARIO FOR TASK 353:** You have been instructed to install the forward top anti-icing manifold (duct).

7. (I042) Which of the two pictures (A or B) to the left shows the anti-icing duct. Write the matching letter on the answer sheet.

8. From the list below, select the actions or checks that you should take to install the forward top anti-icing manifold (duct). Place a checkmark in the yes column of the answer sheet if you should perform the action. Place a checkmark in the no column if you should not perform the action.

- (I043) Ensure that all covers, plugs, and caps are removed before installing the duct.
- (I044) Connect and torque all tubing prior to connecting the center duct.
- (I045) Apply lubricant to the front pads between the gaskets and the air duct.
- (I046) Place gaskets between the front pads and the air ducts.
- (I047) Secure the air ducts with four bolts and washers on each pad.
- (I048) Lockwire the four bolts together on each pad (in one connecting series).
- (I049) Install the bracket (which supports the CIT reference pressure line) between the flange and the gasket.
- (I050) Ensure that the parts are properly aligned and then torque the bolts and nuts in the following order:
  - a. Forward duct to frame
  - b. Forward duct to center duct
- (I051) Attempt to retrieve any foreign objects that are dropped into the engine.

**TASK 360: Install the engine exhaust gas temperature thermocouple harness.**



**SCENARIO FOR TASK 360:** You have been instructed to install the exhaust gas thermocouple harness.

9. (I052) Which of the components (A,B,C) in the picture to the left is the EGT thermocouple harness. Write the matching letter on the answer sheet.

10. From the list below, select the actions or checks that you should take when installing the EGT thermocouple harness. Place a checkmark in the yes column of the answer sheet if you should perform the action. Place a checkmark in the no column if you should not perform the action.

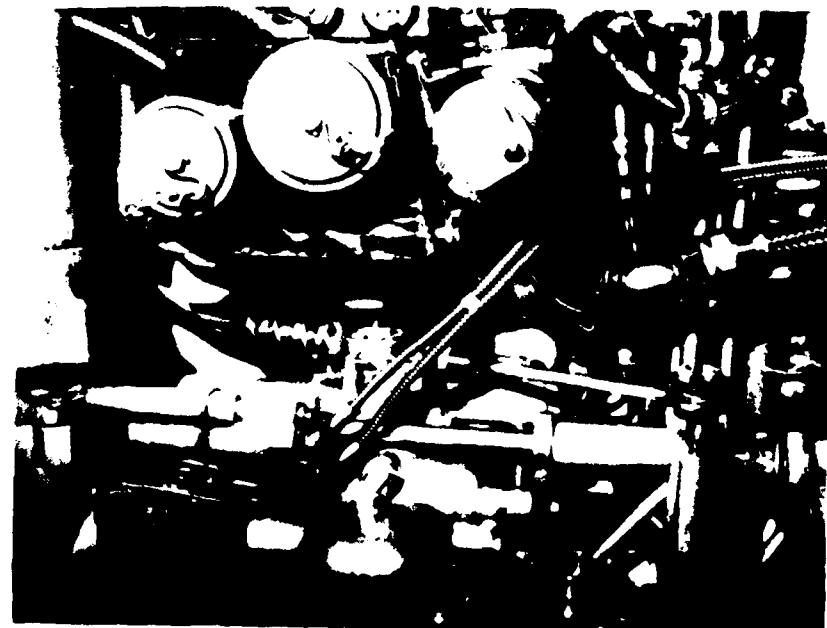
- (I053) Ensure that no burrs remain on the threads or mating surface of the turbine frame boss.
- (I054) Ensure that no lubricant ran into the filler material around the thermocouple loops at the ends of the probes.
- (I055) Apply a thin coating of lubricant on the threaded areas of each thermocouple boss on the turbine frame.
- (I056) Torque each nut as each probe is installed.
- (I057) Ensure that the harness did not bend causing the inside filament to be broken.
- (I058) Install a copper gasket between the top harness and the lead.
- (I059) Connect the forward end of each harness to the rigid thermocouple lead.
- (I060) Safety wire each thermocouple harness mounting boss to a turbine case flange bolt.

**TASK 387: Rig Inlet Guide Vane System**

**A**



**B**



**SCENARIO FOR TASK 387:** You have been instructed to rig the Inlet Guide Vane System. The IGV feedback cable has been inspected and installed. The IGV is open and set at 19° 30". The turn buckle on the microadjust is centered. The sheave box is disengaged from the main fuel control.

11. (I061) Which of the two pictures (A or B) to the left shows the IGV system adjustment components? Write the matching letter on the answer sheet.

12. From the list below, select the actions you should take to rig the IGV system. Place a checkmark in the yes column of the answer sheet if you should perform the action. Place a checkmark in the no column if you should not perform the action.

#### CLUTCH ENGAGEMENT

- (I062) Remove the rig pin port plug.
- (I063) Insert an Allen Wrench in the feedback shaft.
- (I064) Rotate the shaft approximately 3/4 turn counterclockwise against the spring tension.
- (I065) Insert the rigging pin to hold the shaft at the rig position.
- (I066) Insert a screwdriver under the locknut to gently pry the shaft outward to assist engagement.
- (I067) If the sheave box clutch teeth do not engage, loosen the jam nuts on the microadjust unit and turn the coupling until the sheave clutch teeth engage.
- (I068) Torque the locknut on the sheave box before removing the rigging pin.
- (I069) Remove the rigging pin.

#### CLUTCH ENGAGEMENT CHECK

- (I070) Hold the feedback shaft with an Allen Wrench.
- (I071) Using a lead pencil, mark one flat on the locknut.
- (I072) Loosen the lock nut 1/2 turn.
- (I073) With the Allen Wrench inserted in the feedback shaft, push in and attempt to rotate the shaft in both directions.
- (I074) Ensure that the shaft will turn more than the clutch teeth backlash permits.
- (I075) Hold the shaft with the Allen Wrench and torque the lock nut.

## INSPECTION FOR FEEDBACK CABLE BINDING

- (I076) Remove the rod-end bearing retaining nut from the first stage bell crank clevis bolt.
- (I077) Snap the cable back to ensure that the spring is loaded.
- (I078) Reinstall the rod end bearing on the clevis bolt.
- (I079) Secure the bearing with a retaining nut.

## RIG CHECK

- (I080) Insert a rig pin to the port hole.
- (I081) Adjust the microadjust until the rig pin fits snugly and will not move easily.
- (I082) Remove the rig pin.
- (I083) Torque the microadjust jam nuts.
- (I084) Measure the distance between each jam nut and connector to ensure the limits do not exceed the limits in the PUB.
- (I085) Assemble a status seal on the rigging port plug and install in the rigging port.

## SECURE SYSTEM

- (I086) Bend a tab of the tabwasher against the locknut corner to secure the locknut to the feedback shaft.
- (I087) Lockwire the microadjust and all the sheave box mounting bolts together in one series.



SCENARIO FOR TASK 134: You have been instructed to complete a VIDS/MAF to indicate that work has been performed and parts have been ordered.

13. Using the reproduction of a VIDS/MAF to the left as a reference point, select the statement in column II below that best answers each question in Column I. Write the matching letter on the answer sheets. (One answer will not be used.)

I (Questions)

(I088) What is the purpose of the VIDS/MAF?

(I089) Under what condition would a supply document number entry be made in Block 49?

(I090) When working in the shop (IMA) in which block do you note that an item has been repaired by replacing a part?

(I091) What is the purpose of the job control number?

(I092) What do the numbers in Block A11 DAY represent?

(I093) What does the work center entry in Block A19 represent?

(I094) What entry on the form identifies the part on which the work is being performed?

(I095) Who completes the inspected by block?

(I096) How can you tell that a part has been ordered?

II (Answers)

A. The Julian date

B. Aircraft Maintenance Officer

C. Removed Old Item

D. Process Repairs & Controls (To follow the parts through the repair process)

E. Look at the DOC No. Block

F. When a demand has been placed on the test cell to perform a bench check on the replacement item.

G. Control and Identify the maintenance jobs

H. Where the individual who is doing the work is assigned.

I. Where the work is being performed.

J. Corrective Action Block

K. The CDI or the QA Inspector

L. When a demand has been placed on the supply system for a like item as a replacement

**TASK 351: Install Constant Speed Drives**

**A**



**B**



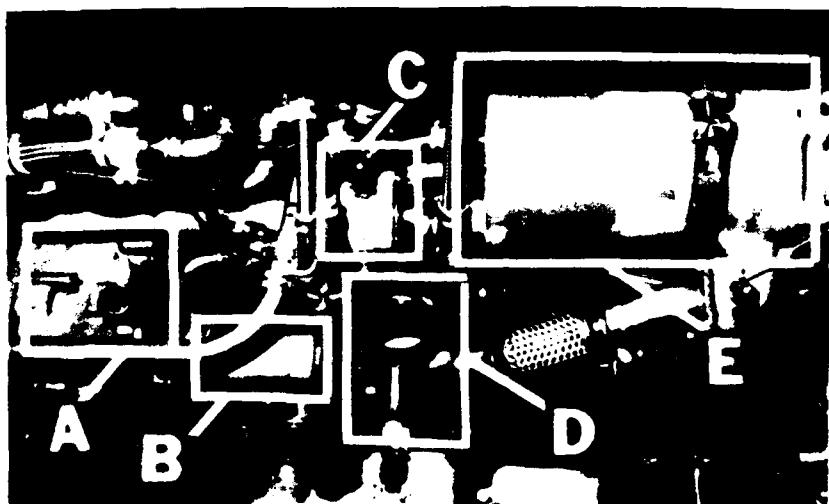
**SCENARIO FOR TASK 351: You have been instructed to install the constant speed drive (CSD) and generator assembly.**

14. (0097) Which of the pictures (A or B) to the left is a picture of a CSD unit? Write the matching letter on the answer sheet.

15. From the list below, select the actions or checks you should take to install a constant speed drive and generator assembly on an engine on an aircraft. Place a checkmark in the yes column of the answer sheet if you should perform the action. Place a checkmark in the no column if you should not perform the action.

- (0098) Ensure that there is no power on the aircraft.
- (0099) Ensure that either a safety strut is installed on the door or the 81 door is disconnected prior to attempting the installation.
- (0100) Ensure that the transfer gearbox female spline, spline adapter, and mating portion of the input shaft are clean and well lubricated.
- (0101) Install the adapter.
- (0102) Engage the splined drive and slide the generator drive assembly over the studs on the mounting pad.
- (0103) Use force if necessary to ensure that the adapter engages in the gearbox splines when installing the CSD and Generator.
- (0104) Install one washer on each stud.
- (0105) Torque the CSD mounting nuts by starting at the 1 o'clock position and working clockwise to the 12 o'clock position.
- (0106) Connect the oil drain lines to the generator and drive unit.
- (0107) Connect the electrical connector to the drive unit and tighten the cannon plug with channel lock pliers.
- (0108) Secure the electrical connector with lockwire.
- (0109) Ensure that the lines are not damaged during the CSD installation.
- (0110) Ensure that the terminal board is not damaged.
- (0111) Service the dry sump upon completion of the CSD installation.

**TASK 319: Isolate fuel system malfunctions.**



**SCENARIO FOR TASK 319:** You have been instructed to isolate a fuel system malfunction when there is low fuel flow and the starting speed is reached but there is no start.

16. Using the letter code on the picture to the left, match each piece of equipment or set of components with its name listed below. Write the matching letters on the answer sheet.

- (0112) Main Fuel Manifold
- (0113) Main Fuel Pump and Low Pressure Filter
- (0114) Main Fuel Control
- (0115) High Pressure Fuel Filter

17. From the list below, select the actions or checks that you should take to isolate a fuel system malfunction when there is low fuel flow and the starting speed is reached but there is no start. Place a checkmark in the yes column of the answer sheet if you should perform the action. Place a checkmark in the no column if you should not perform the action.

- (0116) Perform an airframe power plant control system rigging check to determine if system is in rig.
- (0117) Check aircraft fuel boost pump pressure to determine if pressure is between 50-75 psig.
- (0118) Check the main fuel pump discharge pressure to ensure that the pressure is at least 100 psig above aircraft boost pressure at 10 percent rpm.
- (0119) Replace engine manifold shutoff valve.
- (0120) Replace engine main fuel pump if faulty.
- (0121) Replace the throttle cutoff switch.
- (0122) Replace the main fuel control if above procedures do not correct the problem.

18. Carefully read each of the following questions and responses. Place a checkmark in the yes column if the response is correct. Place a checkmark in the no column if the response is incorrect. (NOTE: It is possible to have more than one correct response to a question.)

18a. Why should you read the engine history data when attempting to isolate a fuel system problem?

- (0123) To determine trends.
- (0124) To determine which component was last worked on.
- (0125) To determine who flies the aircraft.

18b. What do you use to check the main fuel pump discharge pressure?

- (0126) An indirect reading gauge.
- (0127) A direct reading gauge.
- (0128) A modified reading gauge.

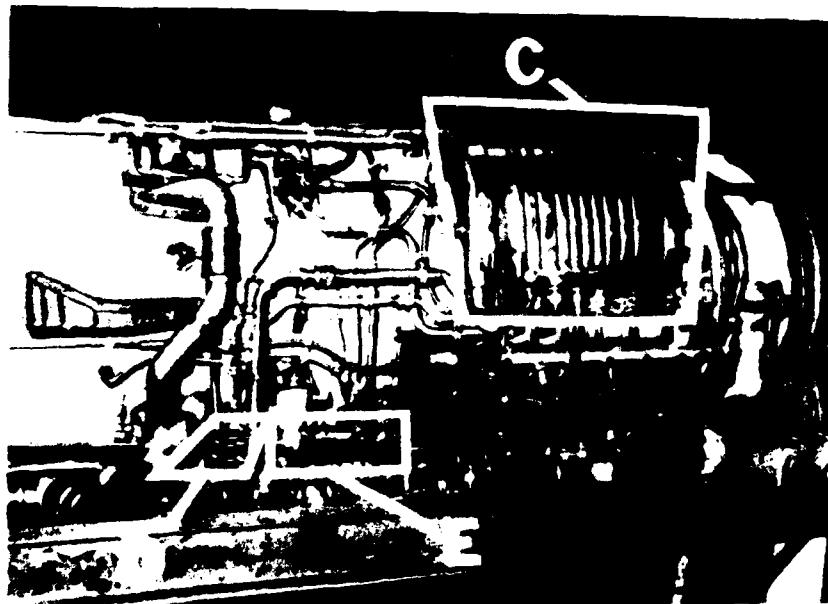
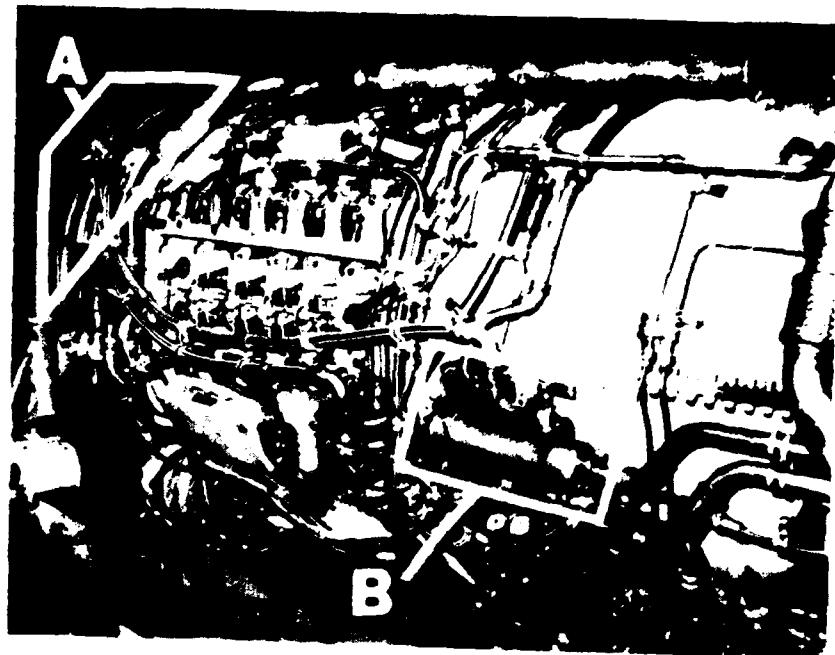
18c. What do you connect the pressure gauge to when checking the main fuel pump discharge pressure?

- (0129) Main Fuel Manifold
- (0130) Main Fuel Pump and Low Pressure Filter
- (0131) Main Fuel Control
- (0132) High Pressure Fuel Filter

18d. How do you determine if the boost pump is malfunctioning?

- (0133) Look to see if there is a PSI reading on the boost pump.
- (0134) Look to see if there is a PSI reading in the cockpit.
- (0135) Look to see if there is a PSI reading on the pressure gauge.

**TASK 325: Determine source of high oil consumption.**



**SCENARIO for Task 325:** You have been instructed to determine the source of high oil consumption.



19. Using the letter codes on the pictures to the left and the one above, match each labeled component with its name listed below. Write the matching letter on the answer sheet.

- (0136) Oil Tank
- (0137) Main Lube and Hydraulic Pump
- (0138) Main Lube and Hydraulic Filters
- (0139) Scavenge Pump
- (0140) Air Oil Cooler
- (0141) Main Oil Cooler

20. Beginning and ending at the oil tank, indicate the path that the oil flows through the following components. Write the order (2-7) on the answer sheet. (1 and 8 are already entered.)

- (0142) Oil Tank
- (0143) Oil Jets for Bearing Cavities and Sumps
- (0144) Main Lube and Hydraulic Pump
- (0145) Oil Coolers
- (0146) Lube Pressure Transmitter Relief Valve
- (0147) Scavenge Pumps
- (0148) Main Lube and Hydraulic Filters
- (0149) Oil Tank (8)

21. From the list below, select the areas that you would normally inspect for defects if you found excessive oil on the internal side of the bay doors (cowling). Place a checkmark in the yes column if you would normally inspect the area for defects. Place a checkmark in the no column if you normally would not check the area.

- (0150) Oil Tank
- (0151) Gear Box
- (0152) Garloc Seal Leaks
- (0153) Oil Pump Accessory Housing
- (0154) Number Three Bearing Area
- (0155) Pressure Lines
- (0156) Scavenge Lines
- (0157) Combustion Case Split Line
- (0158) Overboard Drain Lines

22. From the list below, select the areas that you would normally suspect oil to be coming from if you found oil in the exhaust area. Place a checkmark in the yes column of the answer sheet if you would suspect oil coming from the area. Place a checkmark in the no column if you would not suspect the area.

- (0159) Oil Tank Area
- (0160) Number 3 Bearing Area
- (0161) Popit Valve/Shut-off Valve
- (0162) Rear Gearbox
- (0163) Oil Cooler Area(s)
- (0164) Rear Scavenge Cavity

23. From the list below, select the two basic pieces of information that you would need to determine whether or not the engine had excessive oil consumption. Place a checkmark in the yes column of the answer sheet if you need the information. Place a checkmark in the no column if you do not need the information.

- (0165) The number of flying hours
- (0166) The number of sorties
- (0167) The number of quarts of oil serviced
- (0168) The flying altitude

**APPENDIX M**

**JOB KNOWLEDGE TEST ANSWER SHEETS  
FOR  
NAVY/MARINE CORPS J-79 JET ENGINE MECHANICS  
ORGANIZATIONAL MAINTENANCE ACTIVITY (OMA)**

JOB KNOWLEDGE TEST ANSWER SHEET FOR  
NAVY/MARINE CORPS J-79 JET ENGINE MECHANICS  
OMA

Last Name	First	MI	SSN
1. Yes No	6. Yes No	12. Yes No	
I001 — —	I032 — —	I062 — —	
I002 — —	I033 — —	I063 — —	
I003 — —	I034 — —	I064 — —	
I004 — —	I035 — —	I065 — —	
I005 — —	I036 — —	I066 — —	
I006 — —	I037 — —	I067 — —	
I007 — —	I038 — —	I068 — —	
I008 — —	I039 — —	I069 — —	
I009 — —	I040 — —	I070 — —	
	I041 — —	I071 — —	
		I072 — —	
2. Letter Code	7. Letter Code	I073 — —	
I010 —	I042 —	I074 — —	
I011 —		I075 — —	
I012 —		I076 — —	
I013 —	8. Yes No	I077 — —	
I014 —	I043 — —	I078 — —	
I015 —	I044 — —	I079 — —	
3. Letter Code	I045 — —	I080 — —	
I016 —	I046 — —	I081 — —	
	I047 — —	I082 — —	
	I048 — —	I083 — —	
	I049 — —	I084 — —	
	I050 — —	I085 — —	
4. Yes No	I051 — —	I086 — —	
I017 — —		I087 — —	
I018 — —	9. Letter Code	I088 —	
I019 — —	I052 —	I089 —	
I020 — —		I090 —	
I021 — —	10. Yes No	I091 —	
I022 — —	I053 — —	I092 —	
I023 — —	I054 — —	I093 —	
I024 — —	I055 — —	I094 —	
I025 — —	I056 — —	I095 —	
I026 — —	I057 — —	I096 —	
I027 — —	I058 — —	14. Letter Code	
I028 — —	I059 — —	I097 —	
I029 — —	I060 — —		
I030 — —			
5. Letter Code	11. Letter Code		
I031 —	I061 —		

JOB KNOWLEDGE TEST ANSWER SHEET FOR  
NAVY/MARINE CORPS J-79 JET ENGINE MECHANICS  
OMA (Cont'd)

15.	Yes	No	18d.	Yes	No
0098	—	—	0133	—	—
0099	—	—	0134	—	—
0100	—	—	0135	—	—
0101	—	—			
0102	—	—			
0103	—	—	19. Letter Code		
0104	—	—	0136	—	
0105	—	—	0137	—	
0106	—	—	0138	—	
0107	—	—	0139	—	
0108	—	—	0140	—	
0109	—	—	0141	—	
0110	—	—			
0111	—	—			

16. Letter Code	20. Number
0112	0142 1
0113	0143
0114	0144
0115	0145
	0146
	0147

17.	Yes	No	0148	
0116	—	—	0149	8

21.	Yes	No
0120	—	—
0121	—	—
0122	—	—
	0150	
	0151	
	0152	
	0153	
	0154	

18a.	Yes	No	0155	
0123	—	—	0156	
0124	—	—	0157	
0125	—	—	0158	

18b.	Yes	No	0159	
0126	—	—	0160	
0127	—	—	0161	
0128	—	—	0162	

18c.	Yes	No	0163	
0129	—	—	0164	
0130	—	—		
0131	—	—		
0132	—	—		

**APPENDIX N**  
**GENERAL UTILITY/ACCEPTABILITY QUESTIONNAIRE**  
**FOR**  
**THE NAVY/MARINE CORPS J-79 JET ENGINE MECHANIC**  
**PERFORMANCE ASSESSMENT SYSTEM**

GENERAL UTILITY/ACCEPTABILITY QUESTIONNAIRE FOR  
THE NAVY/MARINE CORPS J-79 JET ENGINE MECHANIC  
PERFORMANCE ASSESSMENT SYSTEM

NAME \_\_\_\_\_

SSN \_\_\_\_\_

We are interested in your beliefs about the usefulness of the entire performance measurement system (i.e., rating forms, hands on testing, interview testing, and job knowledge test with photographs) as well as your beliefs about how the performance information will be used. Please respond to questions 1 through 6 by using the scale below.

- 1 = Not at all
- 2 = To a small extent
- 3 = To a moderate extent
- 4 = To a great extent
- 5 = To a very great extent

---

1. How much do you believe each measuring instrument will allow someone to correctly determine your level of job proficiency?

- Rating Forms
- Hands-On Tests
- Interview Tests
- Job Knowledge Test

2. How acceptable (i.e., easy to use and understand) do you believe each measuring instrument is as a means of determining job proficiency?

- Rating Forms
- Hands-On Tests
- Interview Tests
- Job Knowledge Tests

3. How motivated were you to complete each measuring session?

- Rating Forms
- Hands-On Tests
- Interview Tests
- Job Knowledge Tests

4. How well did the instructions that you received before each session prepare you for the respective session?

- Rating Forms
- Hands-On Tests
- Interview Tests
- Job knowledge Tests

5. How well was the importance of this Performance Measurement program to the Navy/Marine Corps expressed in the orientation you received?

\_\_\_\_\_

6. How concerned are you that the information collected for this performance measurement program might be used for other purposes (i.e., actual performance reports or other administrative purposes?)

\_\_\_\_\_

7. What improvements would you make in the instructions of any of the measuring instruments?

\_\_\_\_\_

8. Think back on all of the rating forms, hands-on tests, interview tests, and job knowledge tests that you completed during this project. Using a number (1 through 4) only once, rank the rating forms and the tests on their ability to provide accurate and useful information about an individual's performance.

( 1=Best, 2=Next to the best, 3=Next to the worst, 4=Worst)

- RATING FORMS
- HANDS-ON TESTS
- INTERVIEW TESTS
- JOB KNOWLEDGE TESTS

Additional Remarks/Comments:

\_\_\_\_\_

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